

# Social Communication Disorders in children: diagnostic issues, identification of individual needs and evidence-based intervention.

Dr Catherine Adams

Clinical Senior Lecturer in Speech and  
Language Therapy

University of Manchester, UK

Website:

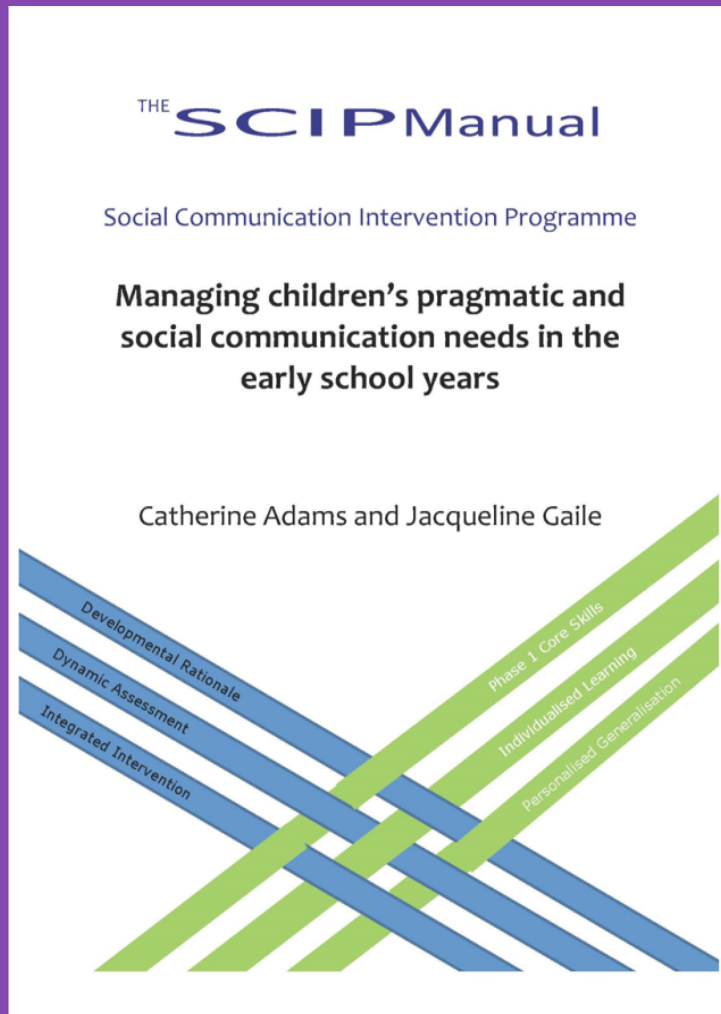
<http://www.psychsci.manchester.ac.uk/scip>

Email:

[catherine.adams@manchester.ac.uk](mailto:catherine.adams@manchester.ac.uk)



# Where can I get SCIP?



[napierhillpress.co.uk](http://napierhillpress.co.uk)

Publication in May 2015

We hope!

**Content**     Diagnostic and categorical arguments  
around the nature of SCD

---

Evidence based practice and SCD/PLI

---

Assessment methods and how to link  
this to planning intervention.

---

The Social Communication Intervention  
Programme, SCIP

---

Case study

---

Pragmatics

Social  
Communication

Social skills

Language  
disorder

# What is pragmatics?

Domain of  
language

Use of  
language in  
social contexts

Formally  
defined in  
linguistics

# The evolution of clinical pragmatics over time

Speech  
acts

Discourse  
level

Cognitive  
influences

# What are the developmental processes in pragmatics?

## Non-developmental account

- Speech Act Theory (Austin 1970s)
- Cooperative principles (Grice 1970s)
- Relevance Theory (Sperber & Wilson 1980s)

## Developmental theories

- Functionalism (Bates 1970s/80s): function before form (e.g. Bates & McWhinney)
- Emergent model of pragmatics (Perkins 2007)



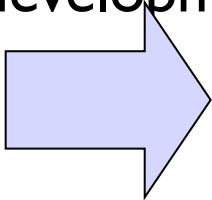
What happens when a child's pragmatic development is disrupted?

Many children with a variety of communication disorders have disrupted use of language or pragmatics

e.g. Specific Language Impairment (SLI)

→ *secondary pragmatic limitations caused by restricted language forms (Expressive language impairments only?)*

Where pragmatics is **disproportionately** disrupted compared to other aspects of language (such as syntax) development



**Pragmatic language impairment**  
**PLI**  
**Bishop 2000**

# Pragmatic Language Impairment in children

## PLI

Defined as a disproportionate difficulty with pragmatics

Pragmatics compared to structural aspects of language within the individual

Will have additional structural language problems (similar to SLI) and some mild social deficits

Previously called semantic-pragmatic language disorder (Rapin & Allen 1983, 1987)

# Main pragmatic and language impairment features observed in **PLI**

+ Mild autism features

From Adams C (2013) Pragmatic language impairment  
Volkmar (Ed.) Encyclopedia of Autism, Springer: New York.

## Pragmatics

Responsivity

Initiations

Turn-taking

Verbosity

Topic

Presupposition

Reference

## Language impairment

Non-literal language

Inference

Word meaning

Narrative

# Social features related to ASD

**Unusual or stereotyped intonation**

**Abnormalities of non-verbal communication**

**Social interaction difficulties**

**Difficulty with peer relations**

**Secondary behavioural difficulties**

**Anxiety and other co-morbid mental health problems**

**Lack of flexibility**

# The natural history of PLI

---

Language delayed - may not speak at all until 3/4 years

---

Comprehension very delayed

---

May show autistic traits, e.g. echolalia

---

Attention control very poor

---

Differential diagnosis under 4??

---

Prevalence – unknown but may be 20%+ of specialist paediatric caseload

# Associated problems in PLI

---

Persistent emotional and behavioural issues

---

Literacy – highly variable

---

Later conduct difficulties

---

Better academic outcomes than SLI

---

Better social outcomes than autism

(Whitehouse et al )

# Literacy skills in PLI

Freed, Adams et al 2011

	PLI group (n=70 <sup>1</sup> )			SLI group (n=15)		
	<i>M</i>	<i>SD</i>	Range of Scores	<i>M</i>	<i>SD</i>	Range of Scores
Word reading	85.64	15.25	52-119	71.67	9.83	56-88
Reading comprehension	85.20	14.03	45-110	73.13	8.63	60-92
Nonword reading	88.11	12.82	65-118	76.40	7.48	68-89
Written expression	87.76	14.93	61-130	76.60	7.60	65-92
<i>Note</i> . Standard scores ( <i>M</i> = 100, <i>SD</i> = 15).						
<sup>1</sup> n=69 for reading comprehension, n=63 for nonword reading						

# PLI, SLI and autism spectrum disorder

*Bishop (2000)* proposed pragmatic language impairment (PLI) as a descriptor of the communication profile within this overlap = “ **an intermediate condition**”

*Kjelgaard & Tager-Flusberg (2001)* Children with ASD “exhibit language profiles of grammar, vocabulary, and phonological processing similar to children with SLI “ = **co-morbidity**



# Autism characteristics in children who have PLI

Adams et al (2012)

Using the Social Communication Questionnaire: retrospective rating of autism characteristics by parents

<b>SCQ category</b> (raw score out of 39)	Whole group <i>3 missing data</i>
Non-autistic (score 14 or below)	21 (26%)
PDD (score 15-22)	22 (27%)
Autistic Disorder (score 22 or above)	39 (47%)

# Do PLI and HFA have a shared underlying impairment?

*A persistent impairment of understanding of others' minds (social cognition) is thought to be a key characteristic of autistic cognition (Baron-Cohen et al 1985 ..)*

## Social Cognition

Knowledge of others minds, events, scripts

Attribution of social knowledge and social characteristics to others

Mutual and shared knowledge

Underpins inferential thinking

Underpins real world comprehension

# Diagnostic practice: actual

	Structural Language impairment	Social interaction impairment	Repetitive/restricted behaviours	Pragmatic impairment	Social cognitive impairment
HFA	NO (or yes)	YES	YES	YES	<b>YES</b>
SLI	YES	NO	NO	NO	<b>YES</b>
PLI	YES	YES	NO	YES	<b>YES</b>

# Is PLI in DSM 5?

## Pragmatic Language Impairment PLI

- Disproportionate difficulty with pragmatics
- Plus impairment of language to varying degrees
- Some mild social impairment
- No formal autism diagnosis

## Social Communication Disorder SCD DSM-V

- Persistent difficulty in pragmatics
- Persistent language impairment
- Not ASD (RRBI)
- Early symptoms
- Limited social participation

SCD in DSM V

```
graph LR; A[SCD in DSM V] --- B[Impairment of social communication and social interaction]; A --- C[No diagnosis of autism]; A --- D[Present from early infancy];
```

Impairment of social communication and social interaction

No diagnosis of autism

Present from early infancy

## Problems with PLI/SCD as a category

Children often under identified/over-identified as autistic *Norbury 2014*

Absence of language assessment

Categorical diagnosis leads to categorical treatments?

Social communication problems as a construct

Equating social communication with social skills



# Diagnostic assessment

Presence/absence of Autism:

- Autism Diagnostic Observation Schedule
- Autism Diagnostic Interview
- Social Responsiveness Scale
- Social Communication Questionnaire

Presence/absence of communication impairment

- Children's Communication Checklist- 2: *General Communication Composite*
- Indication of pragmatic language impairment:
- CCC-2 *Social Interaction Deviance Composite*

# Speech and language therapy assessment: the holistic view

## Impairment

- Assessment of receptive/expressive language
- Assessment of high-level language skills

## Activity

- Functional/naturalistic assessment of pragmatic skills in context
- Parent + teacher report/ peer interactions

## Participation

- Use of communication to support social interactions/  
friendships



# Happe Strange Stories (HSS) “Joke”



Daniel and Ian see Mrs Thompson coming out of the hairdressers one day. She looks a bit funny because the hairdresser has cut her hair much too short. Daniel says to Ian, “She must have been in a fight with a lawnmower!”

“Is it true what Daniel says?”  
YES/NO

“Why did he say that?”  
*Analysis of verbal responses*

# TOPICC

## Targeted Observation of Pragmatics in Children's Conversation

- Conversation sample
- Constrain topic using pictures
- Invite reciprocity and initiation
- Observe and rate strengths and needs

Conversation language behaviours difficult to  
detect on testing

## Naturalistic contexts

Data from the Bishop & Adams corpus

### Stereotyped phrase

- A: so what did your dad do?
- C: well he droved it straight to park and then **all of a sudden** we ate some picnic

### Comprehension of verbs

- A: What will these people have to do?
- C: I know/ get a breakdown truck?
- A: and how will they **get** that?
- C: -- they'll get it to scrapyard

# Development of TOPICC

Take aspects shown to be important in previous studies

Each aspect coded in real time from video by trained observer and reliability coder

- **Reciprocity**
- **Listener Knowledge**
- **Verbosity**
- **Topic Management**
- **Discourse style**
- **Response Problems**

Rating scale:

3 = marked evidence of that behaviour across conversation; makes a marked impact on the interaction

2 = makes a moderate but still significant impact on the interaction

1 = is noticeable occasionally but makes only a slight impact on the interaction

0 = is never observed and the behaviour is typical of mature interaction style

**TOPICC**Child's ID: *Joe Time 1*

Picture Set: 2

Category

Rating \*

**Reciprocity/Turn-taking**

Difficulties responding to questions	0	1	2	3
Interrupts speaker frequently, or frequent pauses	0	1	2	3
Reticence	0	1	2	3

**Taking account of listener knowledge**

Giving too much detail and information	0	1	2	3
Giving too little information	0	1	2	3

**Verbosity**

Child dominates conversation	0	1	2	3
Child uses too many questions	0	1	2	3
Obsessional Topics	0	1	2	3
Difficulties with topic maintenance	0	1	2	3
Stereotyped or unusual language	0	1	2	3

**Discourse Style**

Proximity	0	1	2	3
Overly formal or overly friendly	0	1	2	3
Non-verbal behaviours	0	1	2	3

**Response problems**

Comprehension or linguistic limitation results in odd responses	0	1	2	3
---	---	---	---	---

Prompts broad observation of key characteristics of conversation likely to be of interest

Can do it in real time

Main problem is lack of normative data still

Possibility of over-pathologizing immature behaviours

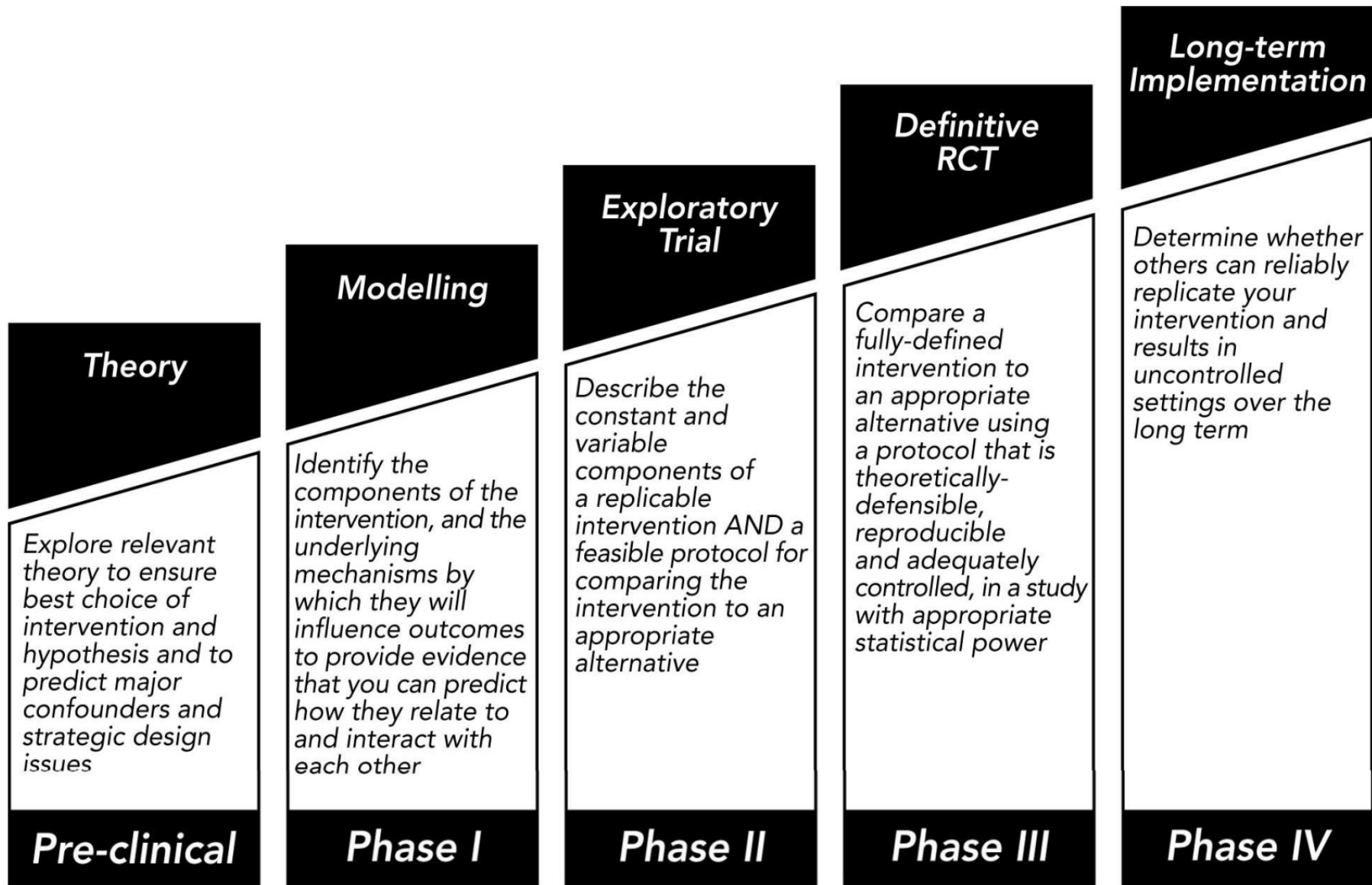
Even with skilled observers measuring pragmatics and social communication is challenging

# Researching the effectiveness of interventions

Should have a theoretical basis

Should specify methods of intervention

Should provide details of actions for replication



**Continuum of increasing evidence**



# Existing evidence for PLI/SCD intervention

Pre-clinical evidence = Brinton/Fujiki

Phase I evidence = case studies

Brinton & Fujiki 1995, 2005

Timler, Olswang et al 2005

Phase 2 evidence = SCIP

Adams et al 2012

Phase 3 and 4 = none

# The Social Communication Intervention Programme (SCIP) Trial

A randomised control trial of intervention for children with  
pragmatic language impairment

Catherine Adams and Elaine Lockton

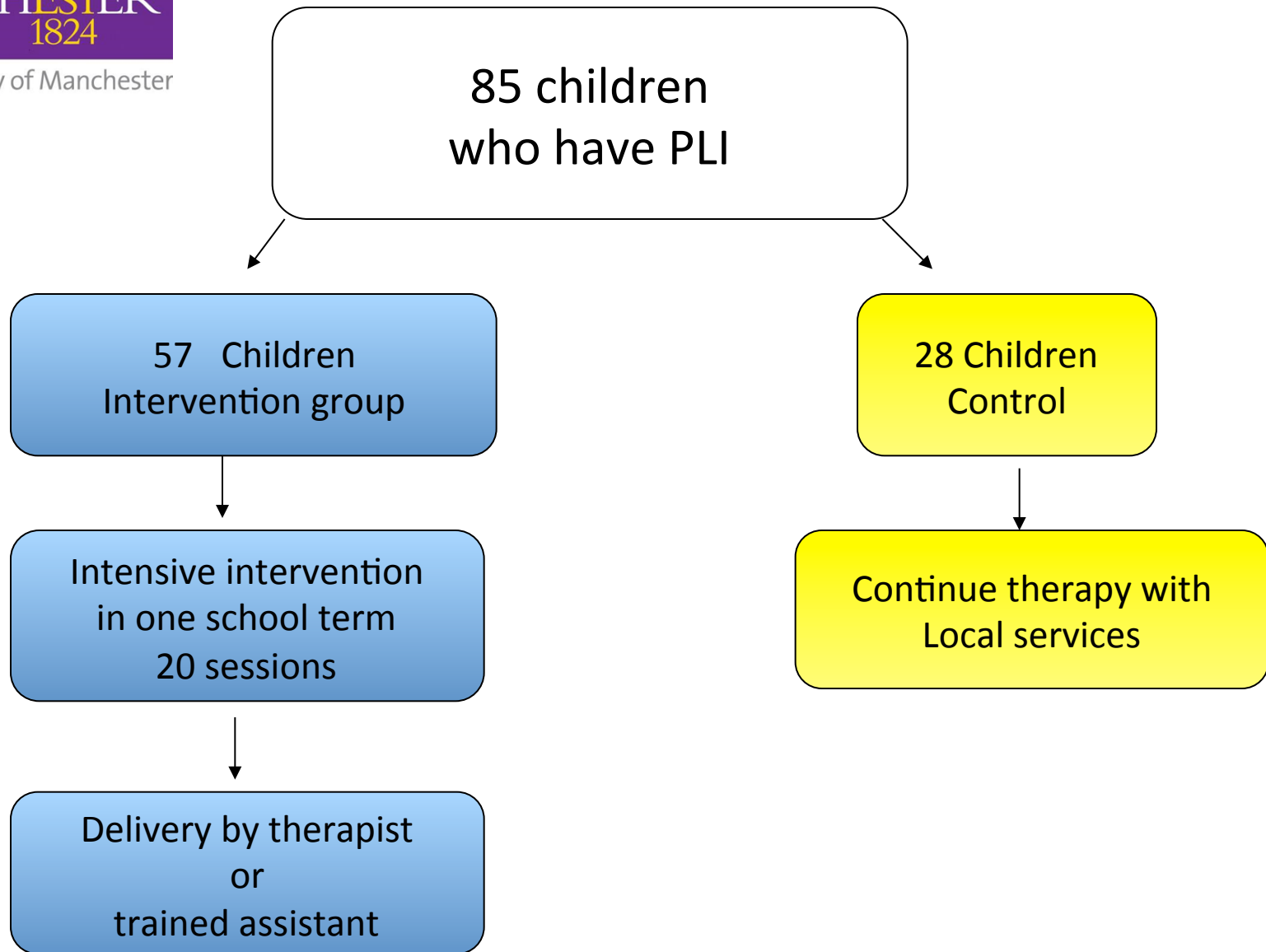
**Funded by the Nuffield Foundation**

RCT (N=88) of effectiveness of SLT for children with PLI /SCD (aged  
6-11)

International Journal of Language and Communication Disorders:Vol  
47:3 (2012)  
& Vol 48:1 (2013)

# Aim of SCIP study

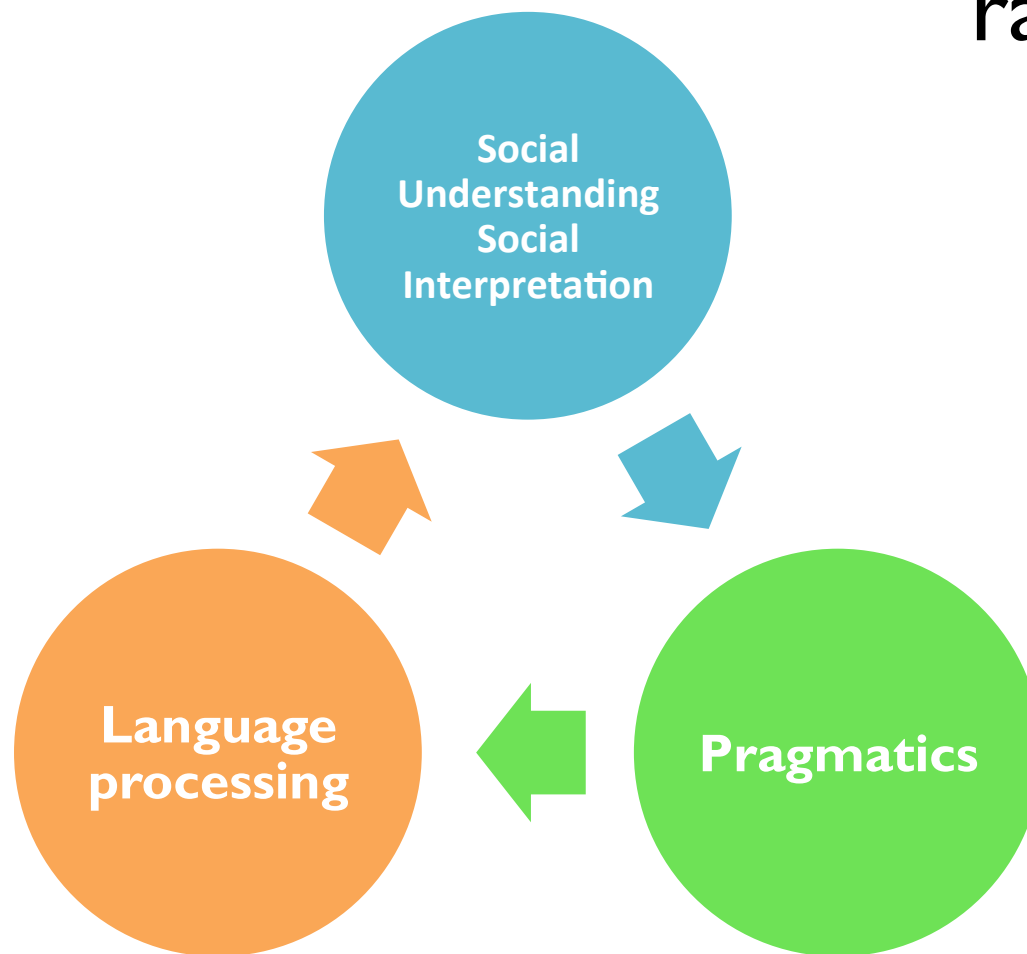
- Ascertain the effectiveness of an intensive social communication therapy (SCIP), compared to treatment-as-usual, for children who have PLI
  - On standardised language assessment functioning
  - On functional pragmatic ability and broader social communication as rated by parents and teachers



# What is SCIP?

- A new intervention method and resource
- Aimed at elementary ages (6-11)
- Carried out in the Social Communication Intervention Project trial
- Contains a method of intervention and resources
- Provides an individualised intervention
- Specialist level intervention

# SCIP Theoretical rationale



# SCIP intervention protocol

Up to three, one-hour  
therapy sessions per  
week (up to a maximum  
of 20 sessions)

Delivered in school by  
specialist therapist or  
trained assistant

One-to-one sessions,  
provision of whole class  
and home based  
activities

Parent/teacher/LSA  
attendance and input  
solicited throughout

Manual of intervention

Complex individualised  
intervention

**Time 1**  
**Pre-intervention/control assessment**  
**outcome measures and baseline assessments**

**Intervention or control phase**

**Time 2**  
**Assessment on outcome measures**  
**immediately after therapy**

**Time 3**  
**Follow-up assessment on outcome measures**



CELF 4 = standardised language test, receptive and expressive language

Targeted Observation of Pragmatics in Children's Conversation (TOPICC)

Pragmatics and Autism Communication lists from Children's Communication Checklist CCC-2

SCIP Parent ratings of social communication

SCIP Teacher ratings of classroom listening and communication

	Whole group N = 87			SCIP N = 59			TAU N = 28		
	75 boys, 12 girls			52 boys, 7 girls			23 boys, 5 girls		
	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range
Age (months)	100.5	15	71-128	100.9	15.1	71-128	99.6	14.8	74-125
CCC-2 GCC	29.3	12	6-57	29.5	12.1	6-57	28.8	12	7-56
CCC-2 SIDC	-1.4			-1.3			-1.5		
RCPM percentile	53.5	28.6	5-96	49.2	28.9	5-96	62.6	26.2	17.5-96
CELF-4 CLSS	72.6	18.3	<b>40-114</b>	71.3	16.8	40-112	75.3	21.2	40-114
<b>&lt; 80 (n=56)</b>	61.6	11.2	40-79	62.3	10.5	40-79	59.7	13.2	40-79
<b>≥ 80 (n=31)</b>	92.4	9.9	81-114	91.7	8	81-112	93.3	12.4	81-114
CCC-2 PRAG (n=86)	34.5	10	10-54	34.2	9.9	15-54	35.2	10.3	10-50
CCC-2 AUT	28.1	10.2	6-49	27.9	10.6	8-49	28.4	9.6	6-44
ERRNI-I	90.9	17.4	64-135	90.3	17.4	65-135	92.1	17.6	64-122
ERRNI-R	86.4	18.2	64-136	85.8	17.2	64-131	87.7	20.3	64-136
ERRNI-C	87.7	16	64-125	87.2	16.6	64-125	88.7	14.8	64-115
SCQ (n=84)	20.3	7.9	2-37	20.3	7.7	3-37	20.2	8.3	2-33
Non-ASD ≤14	21 (25%)			14 (24%)			7 (27%)		
PDD-NOS 15-22	23 (27%)			17 (29%)			6 (23%)		
ASD ≥22	40 (48%)			27 (47%)			13 (50%)		

SCIP Main Outcomes Summary	Masked or not masked?	Intervention effect?
Standardised language test CELF-4	Masked	No
Ratings of conversational skills change TOPICC	Masked	
Parent ratings of pragmatic skills CCC-2 lists	Not masked	
Parent perceptions of improvements in social communication and related skills	Not masked	
Teacher perceptions of change in classroom listening skills	Not masked	

Sub-scales from  
Children's Communication Checklist  
CCC-2

CCC-2 contains more than 60 items

Each item rated 0 → 3 by parent (not masked)

3 = most frequent use of that feature

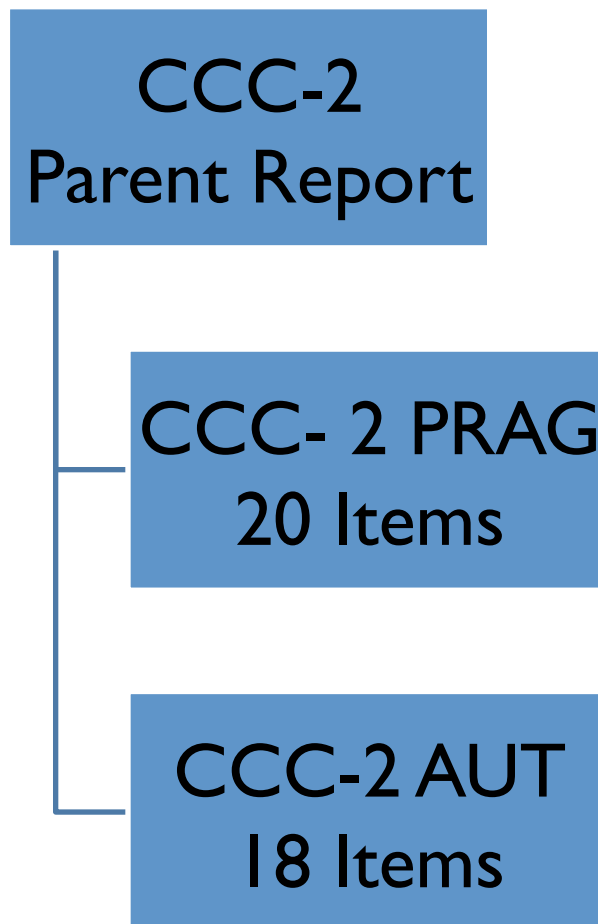
Potential halo effect

A priori sub-lists of PRAG and AUT items

Hypothesis?

CCC-2 PRAG change

CCC-2 AUT no change



# Parent/teacher reported measures

## Parent reported outcome (PRO)

- Language Skills (PRO-LS)
- Social Communication (PRO-SC)
- Social Situations (PRO-SS)
- Peer Relationships (PRO-PR)

## Teacher reported classroom learning skills (TRO-CLS)

- Child's behaviour in typical classroom situations - starting or completing a task, problem-solving skills, asking for help, working in a group etc

SCIP Main Outcomes Summary	Masked or not masked?	Intervention effect?
Standardised language test CELF-4	Masked	No
Ratings of conversational skills change TOPICC	Masked	Yes
Parent ratings of pragmatic skills CCC-2 lists	Not masked	Yes
Parent perceptions of improvements in social communication and related skills	Not masked	Yes
Teacher perceptions of change in classroom listening skills	Not masked	Yes

# Conclusions from trial

Preliminary non-definitive evidence of effectiveness

Non-specific effects on pragmatics

Small effect sizes and heterogeneity

Not everything measures what it claims to measure

Qualitative study adds to essential information

Importance of participation measures

# What is SCIP Intervention?

SCIP Intervention is a speech and language therapy method and resource for elementary school-age children with language, pragmatic and social communication needs

theoretical  
framework of  
intervention

assessment  
procedure

method of mapping  
out an  
individualised  
intervention route

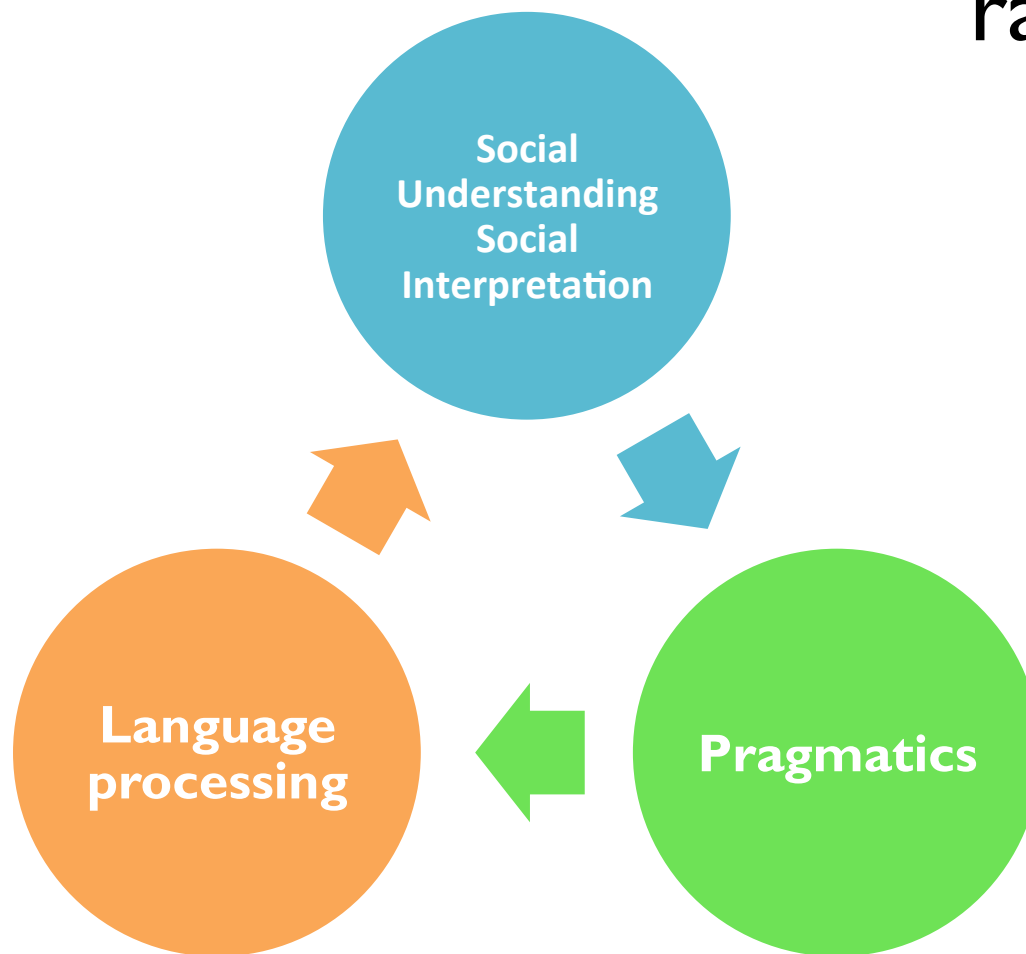
intervention  
objectives

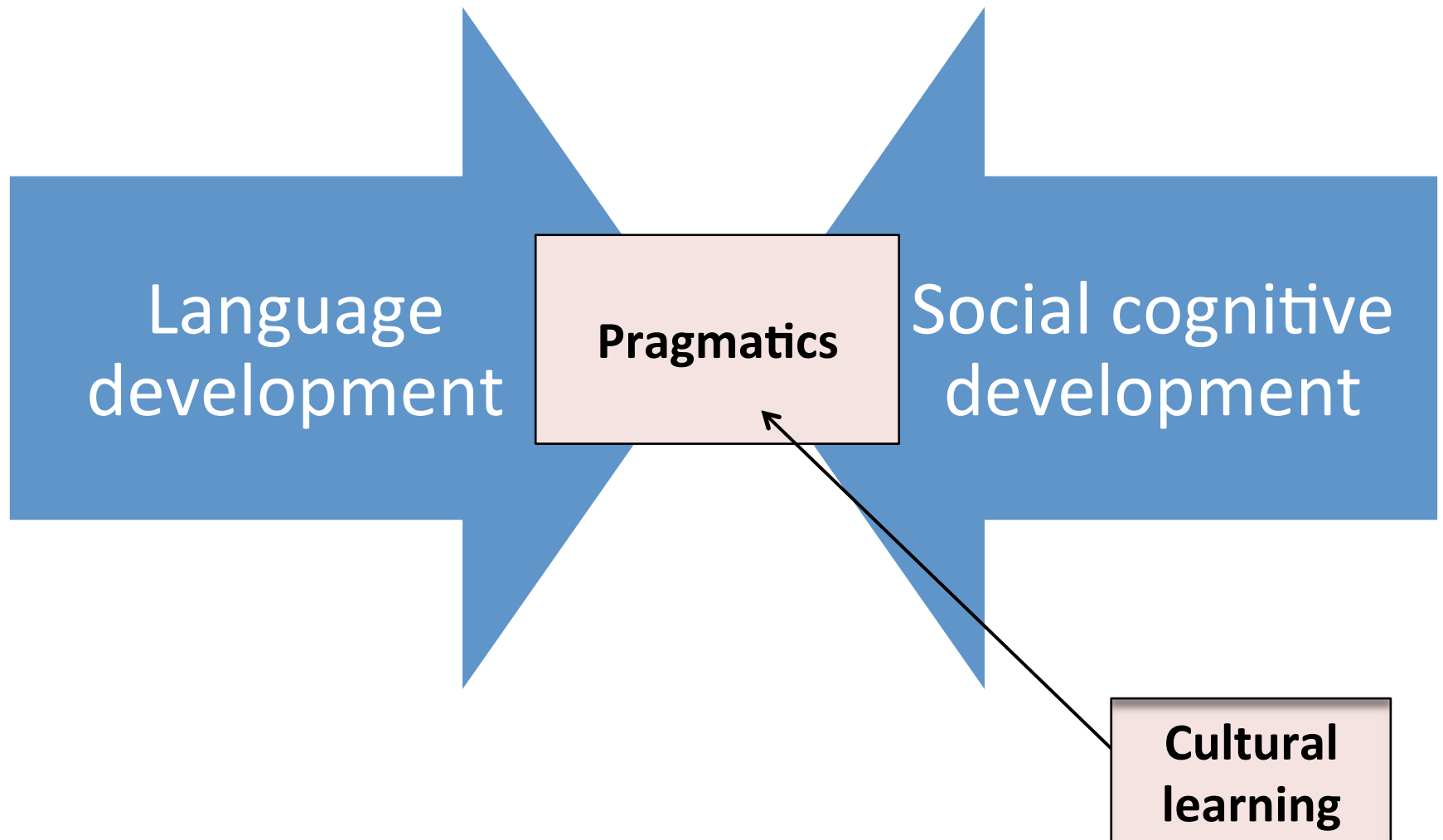
a set of detailed  
therapy activities.



# SCIP

## Theoretical rationale





# Who is SCIP Intervention for?

Children aged between 6 and 11 years of age

Social Communication Disorder (SCD)

Pragmatic Language Impairment (PLI)

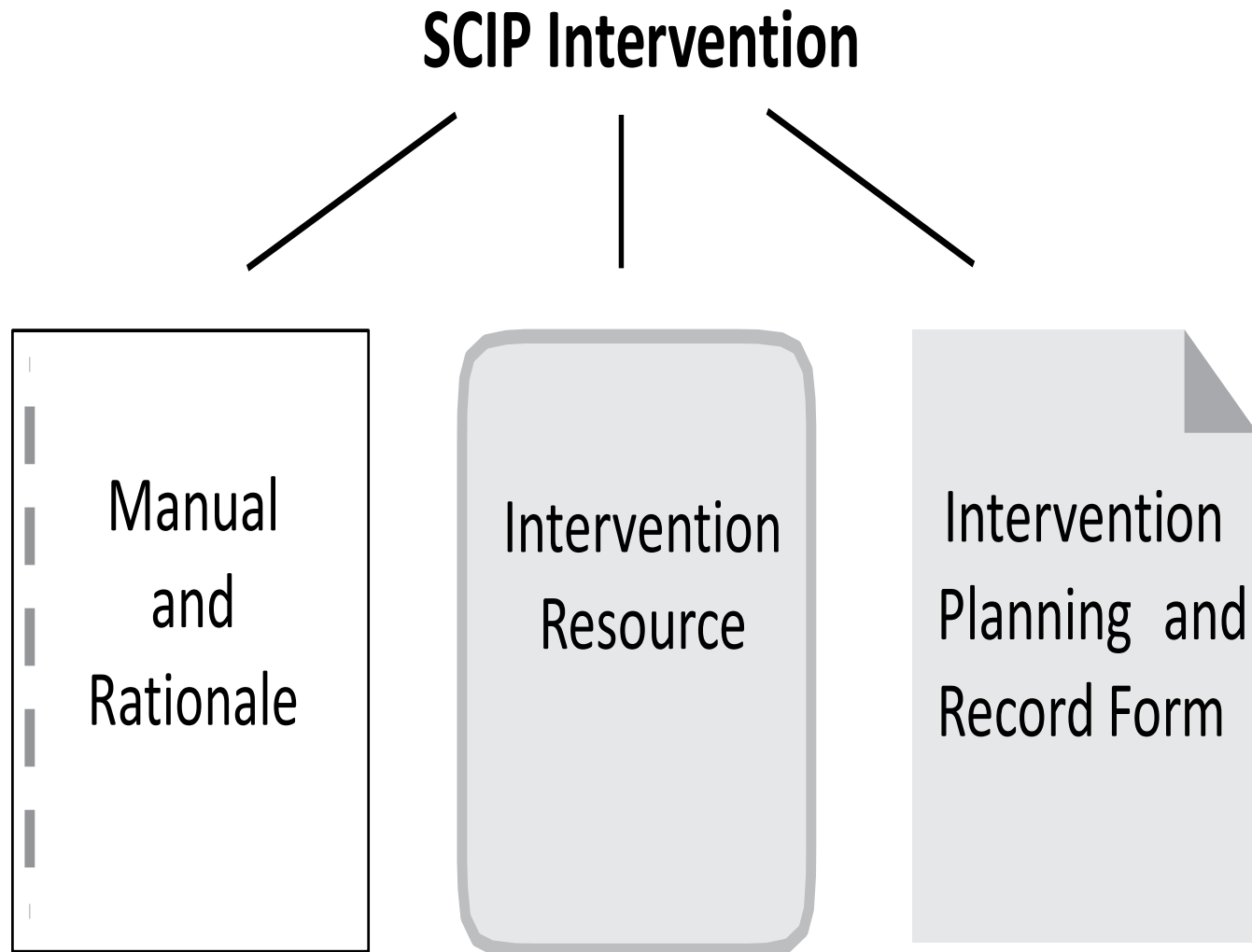
Verbal, high functioning children on the autism spectrum

Some components for use with children who have high-level specific language impairments.

Adaptations for children who are slightly younger or older than the age range above

Children with mild learning difficulties provided specialist practitioner expertise is available

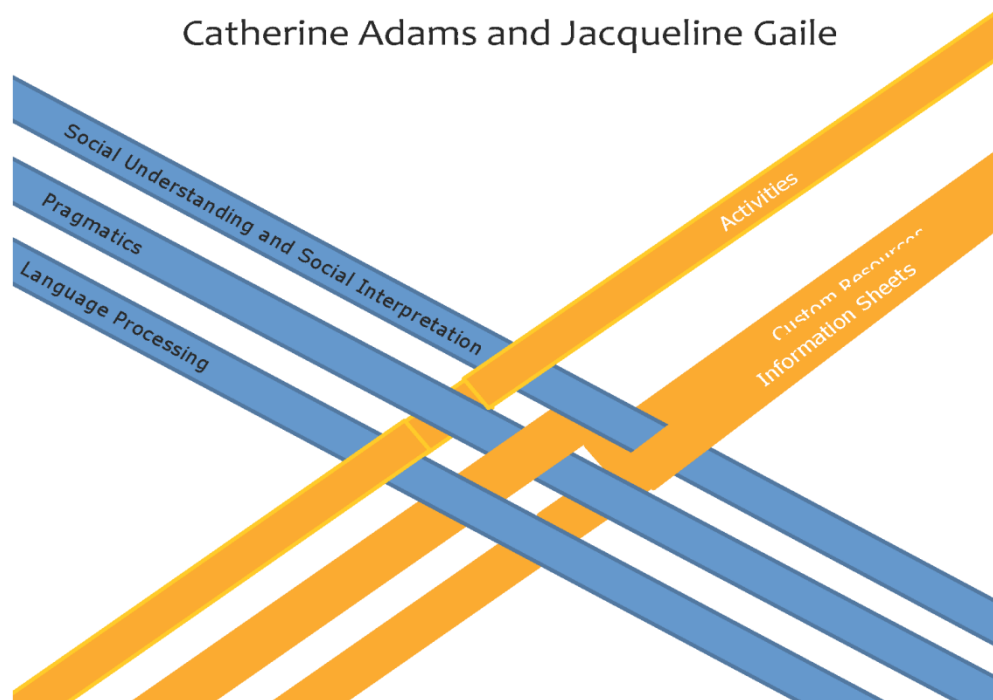
Figure 1: The three resources associated with SCIP Intervention



THE **SCIP** Manual  
Social Communication Intervention Programme

**Intervention Resource**

Catherine Adams and Jacqueline Gaile



Language Processing

Pragmatics

Social Understanding and Social Interpretation

Activities

Custom Resources  
Information Sheets

# The SCIP Manual

Social Communication Intervention Programme  
Catherine Adams and Jacqueline Gaile

## Intervention Planning and Record Form

Name:	Age:	Gender: F / M
Date of birth:	School:	
Date of assessment:	Staff:	
Start of intervention	Other information:	
Therapist		
Telephone:		

SCIP ASSESSMENT	Assessment findings
	Contextual Information Record

SCIP ASSESSMENT SUMMARY
-------------------------

SCIP ASSESSMENT	DISCC
-----------------	-------

SCIP PHASE 1 PLANNER	Sections and objectives
----------------------	-------------------------

SCIP PHASE 1 PLANNING SUMMARY AND PRIORITIES
--

SCIP PHASE 1 RECORD
---------------------

SCIP PHASE 1 SUMMARY REPORT
-----------------------------

SCIP PHASE 2 PLANNER	SUSI
----------------------	------

SCIP PHASE 2 PLANNER	PRAG
----------------------	------

SCIP PHASE 2 PLANNER	LP
----------------------	----

SCIP PHASE 2 PLANNING SUMMARY AND PRIORITIES
--

SCIP PHASE 2 RECORD	Response to intervention
---------------------	--------------------------

SCIP PHASE 2 SUMMARY REPORT
-----------------------------

SCIP PHASE 3 PLANNER	Identify Phase 3 goals
----------------------	------------------------

SCIP PHASE 3 PLANNER	Personalised activity
----------------------	-----------------------

SCIP PHASE 3 RECORD	Therapy session
---------------------	-----------------

SCIP PHASE 3 RECORD	Real world practice
---------------------	---------------------

Carry out initial assessment and complete Assessment findings on page 2.

Add events in the child's typical day / week to the Contextual Information Record on page 3.

Summarise findings and carer priorities for intervention on the Assessment Summary on page 4. Copy to carers and staff.

Start collating examples of difficulties in social situations on the DISCC on page 5.

Summarise assessment on Phase 1 Planner on page 6.

Summarise the overall aims and identify starting points in each Phase 1 section on page 7.

Record the child's performance after each session on the Record on page 8.

At the end of Phase 1 complete the Summary Report on page 9. Copy to carers and staff.

Summarise observations from Assessment and Phase 1 onto SUSI, PRAG and LP Planners on pages 10-12.

Summarise the overall aims and indicate priorities on page 13.

Record the child's performance after each session on the Record on pages 14-15. Regularly update the child's DISCC on page 5.

Record the child's Response to intervention and readiness for Phase 3 on page 16.

At the end of Phase 2 complete the Summary Report on page 17. Copy to carers and staff.

Review and update the child's DISCC on page 5.

Agree up to four goals for generalisation with carers and teachers on the Phase 3 Planner on page 18. Copy to carers and staff.

Write Phase 3 Personalised activities using page 19. Copy to carers and staff.

Record the outcome of the Therapy session on page 20. Copy to carers and staff.

Carers and staff record the outcome of the Real world practice on page 21. Copy to carers and staff.

# SCIP core principles 1: management and context of intervention

Compensation and  
adaptation not  
normalisation

Work closely with  
and training carers  
and education staff

Set up an inclusive  
context for SCIP  
Intervention

Mixed individual  
and buddy work

Knowledge and  
skills required to  
deliver SCIP  
Intervention

## SCIP core principles 2: planning, generalisation and integration

Unpack the child's  
communication needs  
at the start

Use dynamic and  
adaptive intervention  
planning

Individualise and  
personalise  
intervention

Integrate social,  
pragmatic and language  
constituents of therapy

Incorporate  
metacognitive and  
metapragmatic  
strategies and self-  
monitoring



## SCIP core principles 3: Therapy methods

Use a  
developmental  
approach to  
therapy

Establish core skills  
in Phase I

Incorporate a core  
stages model of  
therapy

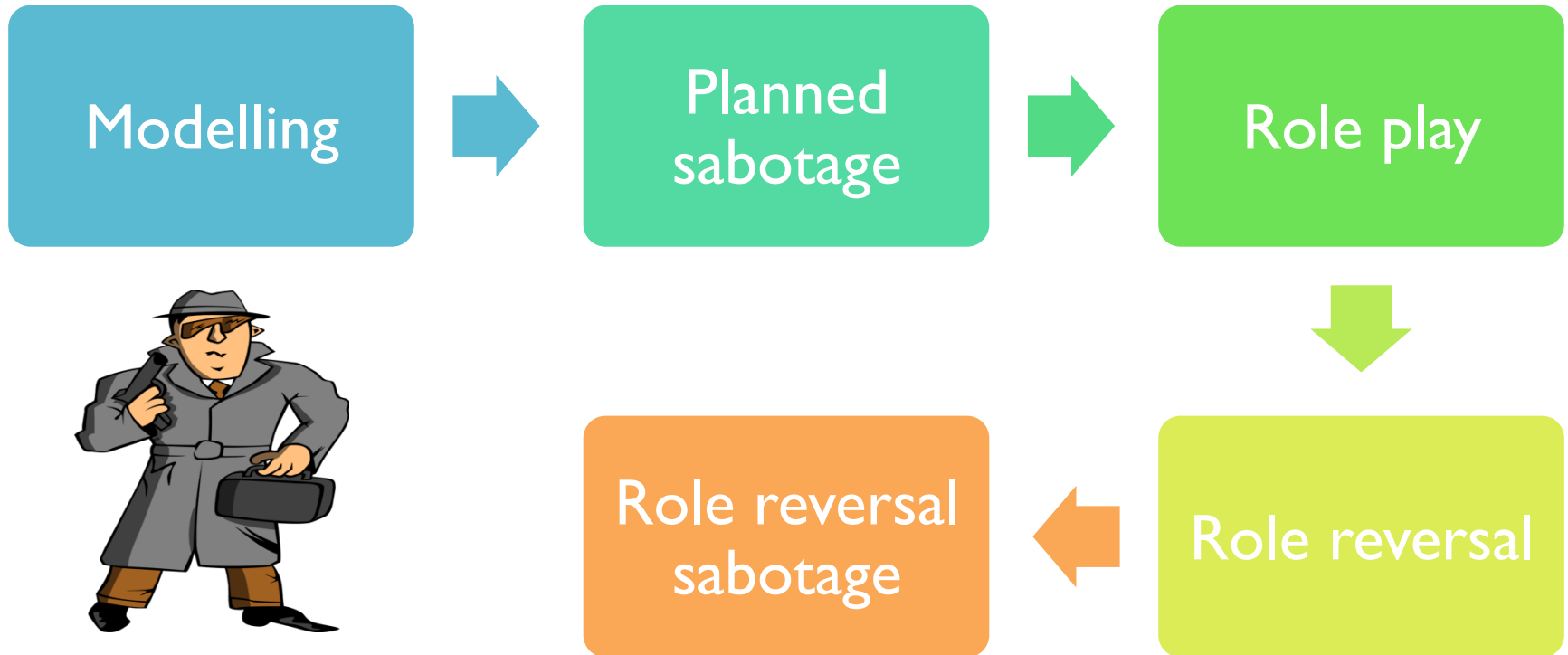
Emphasise  
comprehension  
monitoring

Emphasise language  
scaffolding

Therapy  
techniques used in  
SCIP Intervention



# Therapy techniques in SCIP



# A staged model of metacognitive therapy for social situations intervention as used in SCIP (based on Westby 2004)



# Parents, carers and teachers' roles in SCIP

- To support the child in practising new skills as they are being introduced in Phase 2 Intervention
- To provide information for individualised activities that help develop the child's metapragmatic and metasocial awareness
- To become skilled in understanding the child's social communication needs
- To understand the demands that social interaction and learning place on the child's communication skills as they are at present
- To understand what they can do to support change in the child's communication skills
- To understand the methods of role-play and role-reversal and sabotage
- To be trained in strategies to help the child develop greater self-monitoring
- To be trained in key methods of therapy delivery and simple reflection techniques
- To be prepared for supporting the child in Phase 3 and after the end of the intervention period

# SCIP Phases of intervention

## Phase 1

- Universal
- Preparatory

## Phase 2

- Individualised plan and content
- Main phase of therapy

## Phase 3

- Personalised content
- Blends phase 2 with real life practice

# Assessment materials

SCIP  
ASSESSMENT AND  
PLANNING  
FORM

ASSESSMENT  
SUMMARY

PERSONAL  
INFORMATION  
RECORD

DIFFICULTIES  
WITH SOCIAL  
SITUATIONS  
CHECKLIST

## Language assessment

- Word-finding and semantics
- Narrative construction

## Pragmatics assessment

- Understanding information requirements
- Conversation skills

## Social understanding and social interaction assessment

- Understanding social context
- Understanding emotions

## SCIP Intervention Planning and Record Form

Name: *Ellin \**

DOB: Age: 6;4

Date of assessments

Date of start of intervention

School Information:  
*St Olav's Primary School,  
Runshaw\*\**

Other information: *LSA Mrs Tigg (0.25 fte);  
Mother able to attend intervention  
sometimes*

### Assessment Summary

#### Social Communication

*Has difficulty understanding and interpreting social context  
TOPICC demonstrates difficulty understanding social cues  
Can blurt out things which are hurtful to others*

#### Pragmatics

*CCC - 2 General Communication Composite 18; Social Interaction  
Deviance Composite = 0 (between autistic and SLI ranges)  
Reported difficulty with a range of conversation features; tangential  
responses, and non-verbal communication  
TOPICC shows difficulty with topic, matching style to context and  
sequencing events in narrative*

#### Receptive Language

*CELF-4 Receptive Language Standard Score 57; Concepts & Following  
Directions SS 3; Word Classes (receptive) SS 1; Sentence Structure SS 5  
ERRNI Comprehension Standard Score 81  
ACE Non-literal Comprehension at 7<sup>th</sup> percentile  
British Picture Vocabulary Scales at 9<sup>th</sup> percentile  
Test for Reception of Grammar - 2 age equivalent 4;5  
Happé Strange Stories interpretation 9/36 (low) - misses point of  
most stories.*

#### Expressive Language

*CELF-4 Expressive Language Standard Score 69; Formulated  
Sentences Subtest SS 2; Recalling Sentences SS 7; Word Structure SS 6  
ERRNI Initial story telling Standard Score 107  
ACE Naming at 2<sup>nd</sup> percentile; word-finding difficulties in discourse?*

#### General comments

*Reading comprehension at 5<sup>th</sup> percentile  
Word reading 5<sup>th</sup> percentile  
Children's Test of Non-Word Repetition = 50<sup>th</sup> centile  
Falls into Pervasive Developmental Disorder category on SCQ*

\*all identities are fictitious; assessment findings are genuine examples

\*\*All 'entered data' will be shown in handwritten font



## Links between Phases of SCIP Intervention and Personal Information Record

<b>Personal Information Record</b>	
Information from Carers/Teachers	When this is used in intervention
Describe events in the child's typical day and week (including weekend)	Phase 1, 2
Describe the child's interests including any unusual or strong interests	Phase 1, Phase 2 and 3
Describe the child's relationships with peers and siblings including friendships	Phase 2
Describe the impact of the child's needs on the family and on the child's self esteem	Phase 1, 2 and 3
Describe the impact of child's needs on their learning and any support / adjustments made in class	Phase 3
Describe events that make the child feel happy, sad, angry, scared	Phase 2
Describe some recent and /or regular events that have been non-problematic	Phase 1, 2

## Sample from the Difficulties with Social Situations Checklist

### Difficulties with Social Situations Checklist

Brief description of situation or interaction	Preferred Outcome
<p><i>Going to supermarket to do just a small grocery shop can cause huge rows and he lies down on the floor and refuses to budge - causes embarrassment and sometimes shouts and kicks mum. Gets frustrated when he has to go.</i></p>	<p><i>Mum would like him to be able to understand that the shopping will only take a few minutes. To be able to walk around the aisles and stay close to her.</i></p> <p><i>To understand that lying on the floor makes the trip longer and more stressful for everyone.</i></p> <p><i>To be able to help by finding one of the items and putting it in the basket.</i></p>

# SCIP Phases of intervention

## Phase 1

- Universal
- Preparatory

## Phase 2

- Main phase of therapy
- Individualised plan and content

## Phase 3

- Personalised content
- Blends phase 2 with real life practice

<b>Phase I Section</b>	<b>Phase I Objective and Activity</b>
<b>Comprehension monitoring CM</b>	CM 1: Understanding the concept of knowing and not knowing CM 2: Understanding the concepts of guessing and working out CM 3: Strategies to signal non-comprehension CM 4: Asking for repetition
<b>Introduction to understanding social context USC</b>	USC 1: Making simple inferences from familiar sequences USC 2: Identifying social context from behaviours and language USC 3: Describing behaviours and language for social contexts USC 4: Identify and repair errors in behaviour and language
<b>Basic metapragmatic awareness MPA</b>	MPA 1: Listening for content MPA 2: Understanding behaviours associated with listening MPA 3: Developing metapragmatic vocabulary MPA 4: Listener-speaker role play
<b>Basic Narrative BN</b>	BN 1: Understanding vocabulary for sequencing BN 2: Making simple inferences from pictures BN 3: Simple sequencing BN 4: Simple Personal Stories
<b>Introduction to emotions in context EM</b>	EM 1: Matching pictures and symbols to facial expressions EM 2: Linking emotions to events EM 3: Emotions Thermometer EM 4: Eye gaze, facial expression and meaning
<b>Introduction to friendship FR</b>	FR 1: Understanding vocabulary of friendship FR 2: Understanding personal interests FR 3: Understanding others' interests FR 4: Understanding shared interests

## Phase 1 Sections and their purposes

Phase 1 Section	Purpose
Comprehension monitoring CM	Ensures the ability to monitor own understanding and be able to ask for clarification Establishes simple requests for repetition A key skill that will enhance the child's learning in more complex activities
Introduction to understanding social context USC	Establishes the child's understanding of the conventions/ expectations for a range of social situations Understanding contexts will inform planning for Phase 2 intervention
Basic metapragmatic awareness MPA	Makes explicit reference to/practises conversation-enhancing behaviours Develops a framework for discussion of personal social communication needs Develops awareness of active listener role
Basic Narrative BN	Develops ability to sequence a story and retell a narrative Underpins the child's ability to reflect on his own experiences Introduces the child to the idea of predicting outcomes and understanding consequences
Introduction to emotions in context EM	Discusses emotions in social situations Underpins future work on understanding emotions Identifies personal social issues and gaps in emotional understanding for Phase 2 therapy
Introduction to friendship FR	Explores the child's current level of understanding of the basic foundations of friendships Introduces the idea of shared interests in developing friendships

# Sample Phase I Therapy Activity

---

CM 4

## **COMPREHENSION MONITORING**

Activity 3: Revising and recording strategies to signal non-comprehension

---

**PURPOSE AND TARGET** The child will create a visual reminder of strategies learned to ask for clarification

---

**PROCEDURE** Divide the sheet of card into two columns. Draw a green traffic light on the left and write 'I know' and underneath write / draw 'keep listening', 'keep working'. On the right, draw a red traffic light and write 'I don't know'. .....

---

# Phase 1 Record

*Jake 7;2*

**Session number and date**  
**Planned Content**

**Outcome and future action**

**Session 1**  
CM 1, CM 2  
BN 2, BN 3  
Check MP ability with  
MP 2 activity as probe  
Start Home School Book

*CM 1: After modelling could say 'I don't know' and identify who 'did know'. Role reversal highlighted understanding. Prompting needed to think about ways of finding out.*  
*CM2: Could give good clues in role-reversal.*  
*BN 2: Didn't know what 'first' meant. Couldn't sequence without help. BN 3: lacked vocabulary and missed detail.*  
*MPA 2: probe indicates start at MPA 3*

**Indications for future sessions/other observations from session**

*Follow up CM with activities in classroom suggested by LSA; work on how to ask for clues in CM. Repeat BN work. Keep sequences simple until narrative vocabulary established (first, next, last).*

**Session 2**  
BN 3 (repeat)  
CM 2 (repeat with sabotage) + CM 3  
MPA 3  
Joint session with carer /support assistant to identify joint goals for USC therapy and link these to home support

*BN 3: has worked on BN vocabulary so moved on to before and after. Still needed help with longer sequences (3 step photos).*  
*CM 2 with sabotage - did very well and moved on to CM 3: more comfortable with guessing and asked for clues. Gave clue in role reversal. Said clues were the best way.*  
*MPA 3: established listening poster for classroom and was able to point out successful ways of listening. Developed some vocabulary around listener/speaker roles.*

# SCIP Phases of intervention

## Phase 1

- Universal
- Preparatory

## Phase 2

- Main phase of therapy
- Individualised plan and content

## Phase 3

- Personalised content
- Blends phase 2 with real life practice



## Structure of Phase 2 intervention

SUSI

Social understanding  
and social  
interpretation

PRAG

Pragmatics

LP

Language Processing

## Phase 2 Intervention Content Table

<b>SUSI 1</b> Understanding social context cues in interactions		<b>PRAG 1</b> Conversation and metapragmatic skills		<b>LP 1</b> Vocabulary and Word Knowledge	
<b>SUSI 2</b> Understanding emotion cues in interactions		<b>PRAG 2</b> Understanding information requirements		<b>LP 2</b> Improving Narrative Construction	
<b>SUSI 3</b> Understanding and practising flexibility		<b>PRAG 3</b> Improving turn-taking skills		<b>LP 3</b> Non-literal language	
<b>SUSI 4</b> Understanding thoughts and intentions of others		<b>PRAG 4</b> Understanding and managing topic in conversation		<b>LP 4</b> Discourse Comprehension	
<b>SUSI 5</b> Understanding friendship		<b>PRAG 5</b> Understanding and improving discourse style		<b>LP 5</b> Enhanced Comprehension Monitoring	

<p>Assessment or Parent/ Teacher Report show identified need</p>	<p>Maps to SCIP Intervention Components <i>Prioritised aspects shaded</i></p>
--	---

PR				SUSI 1 Understanding social context cues
HSS	CCC-2	PR	TR	SUSI 2 Understanding emotion cues
				SUSI 3 Increasing flexibility
CCC-2	HSS	PR		SUSI 4 Understanding thoughts and intentions
CCC-2	MIPO			SUSI 5 Understanding friendships

<p>Assessment or Parent/ Teacher Report show identified need</p>	<p>Maps to SCIP Intervention Components <i>Prioritised aspects shaded</i></p>
--	---

PR	TOPICC			PRAG 1 Working on conversation skills
CCC2	TOPICC			PRAG 2 Understanding information requirements
PR	TOPICC			PRAG 3 Improving turn-taking skills
CCC2	TOPICC			PRAG 4 Managing topic change and drift
PR	TR			PRAG 5 Improving and expanding discourse styles

<p>Assessment or Parent/ Teacher Report show identified need</p>	<p>Maps to SCIP Intervention Components <i>Prioritised aspects shaded</i></p>
--	---

--	--	--	--	--

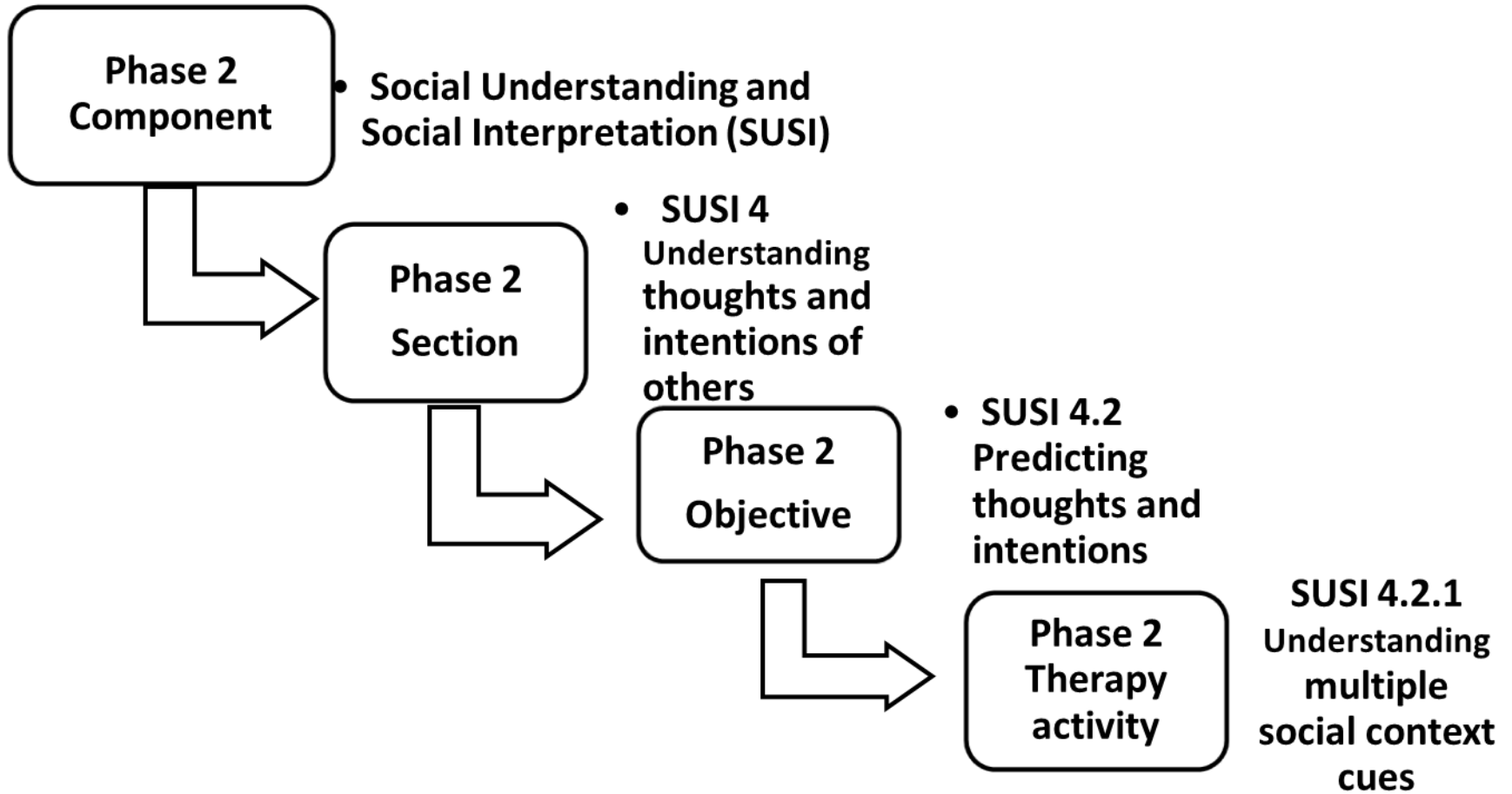
WS*	RS *	CCC-2		LP 1 Vocabulary and word-finding interventions
FS*	ERRNI			LP 2 Improving narrative construction
ACE NL	TR			LP 3 Understanding non-literal language
CFD *	WS *	USP*	FS *	LP 4 Improving comprehension of discourse
CFD *	TOPICC	TR		LP 5 Enhanced comprehension monitoring

## Phase 2 Intervention Content Table

<b>SUSI 1</b> Understanding social context cues in interactions		<b>PRAG 1</b> Conversation and metapragmatic skills		<b>LP 1</b> Vocabulary and Word Knowledge	
<b>SUSI 2</b> Understanding emotion cues in interactions		<b>PRAG 2</b> Understanding information requirements		<b>LP 2</b> Improving Narrative Construction	
<b>SUSI 3</b> Understanding and practising flexibility		<b>PRAG 3</b> Improving turn-taking skills		<b>LP 3</b> Non-literal language	
<b>SUSI 4</b> Understanding thoughts and intentions of others		<b>PRAG 4</b> Understanding and managing topic in conversation		<b>LP 4</b> Discourse Comprehension	
<b>SUSI 5</b> Understanding friendship		<b>PRAG 5</b> Understanding and improving discourse style		<b>LP 5</b> Enhanced Comprehension Monitoring	

## Phase 2 Intervention Content Table

<b>SUSI 1</b> Understanding social context cues in interactions		<b>PRAG 1</b> Conversation and metapragmatic skills		<b>LP 1</b> Vocabulary and Word Knowledge	
<b>SUSI 2</b> Understanding emotion cues in interactions		<b>PRAG 2</b> Understanding information requirements		<b>LP 2</b> Improving Narrative Construction	
<b>SUSI 3</b> Understanding and practising flexibility		<b>PRAG 3</b> Improving turn-taking skills		<b>LP 3</b> Non-literal language	
<b>SUSI 4</b> Understanding thoughts and intentions of others		<b>PRAG 4</b> Understanding and managing topic in conversation		<b>LP 4</b> Discourse Comprehension	
<b>SUSI 5</b> Understanding friendship		<b>PRAG 5</b> Understanding and improving discourse style		<b>LP 5</b> Enhanced Comprehension Monitoring	





# Phase 2 Social Understanding and Social Interpretation content overview

An overview of the content of each section of Phase 2 SUSI Intervention content is shown here before the individual SUSI Section Content tables are presented.

## Social Understanding and Social Interpretation (SUSI)

Sections	Objectives			
<b>SUSI 1</b> <b>Understanding social context cues in interactions</b>	SUSI 1.1 Understanding non-verbal cues in context	SUSI 1.2 Understanding and solving problems in social contexts		
<b>SUSI 2</b> <b>Understanding emotion cues in interactions</b>	SUSI 2.1 Building emotion vocabulary	SUSI 2.2 Enhanced emotion vocabulary	SUSI 2.3 Understanding complex feelings	
<b>SUSI 3</b> <b>Understanding and practising flexibility</b>	SUSI 3.1 Understanding routines	SUSI 3.2 Understanding and coping with unplanned change	SUSI 3.3 Making changes in personal routines	
<b>SUSI 4</b> <b>Understanding thoughts and intentions of others</b>	SUSI 4.1 Signalling feelings and intentions (non-verbal)	SUSI 4.2 Predicting thoughts and intentions	SUSI 4.3 Understanding mismatch of language and thoughts	SUSI 4.4 Understanding complex intentions
<b>SUSI 5</b> <b>Understanding friendship</b>	SUSI 5.1 Understanding interests in friendship	SUSI 5.2 Understanding the impact of obsessive interests	SUSI 5.3 Understanding friendship skills	

**SUSI 4 Understanding thoughts and intentions of others**

SUSI 4 INFORMATION

**SUSI 4.1 Signalling feelings and intentions (non-verbal)**

SUSI 4.1.1 Using eye gaze to signal thoughts and intentions

SUSI 4.1.2 Using eye gaze to signal boredom and interest

**SUSI 4.2 Predicting thoughts and intentions**

SUSI 4.2.1 Understanding multiple social context cues

SUSI 4.2.1 RESOURCE

SUSI 4.2.2 Understanding multiple social context cues (personalised)

**SUSI 4.3 Understanding mismatch of language and thoughts**

SUSI 4.3.1 Understanding lies

SUSI 4.3.1 RESOURCE

SUSI 4.3.2 Understanding white lies

SUSI 4.3.2 RESOURCE

**SUSI 4.4 Understanding complex intentions**

SUSI 4.4.1 Understanding tricks

SUSI 4.4.1 RESOURCE

SUSI 4.4.2 Understanding persuasion

SUSI 4.4.2 RESOURCE

# Sample therapy activity

---

## SUSI 4.2 PREDICTING THOUGHTS AND INTENTIONS

Activity 2: Understanding multiple social context cues (personalised)

---

### PURPOSE AND TARGET

The child will be able to identify and describe expected future events, emotions and thoughts for recent personal experiences

---

### MATERIALS

Draw simple pictures to represent the child's recent social experiences in school and at home. These should not be problematic situations. Speech bubble and arrow sticky notes and emotions thermometer

---

### PROCEDURE

Repeat the procedure for SUSI 4.2.1. Say, "Last time we were working out what people might be thinking and saying. We were looking for clues to work out what might happen next. Let's see if you can work out what is going to happen in these stories about your class / family."

Refer to the first scene, "Here are your friends, Kimran, Suki and Imogen. They are holding their favourite toys. Kimran wants to play with her dolls. Tell me what Suki wants to do and what Imogen wants to play"

## Phase 2 Pragmatics content overview

An overview of the content of each section of Phase 2 PRAG Intervention content is shown here before the individual PRAG Section Content tables are presented.

### Pragmatics (PRAG)

Sections	Objectives				
<b>PRAG 1</b> <b>Conversation and metapragmatic skills</b>	PRAG 1.1 Enhanced listening skills	PRAG 1.2 Understanding speaker roles	PRAG 1.3 Giving Information	PRAG 1.4 Understanding reciprocity	PRAG 1.5 Developing metapragmatic awareness
<b>PRAG 2</b> <b>Understanding information requirements</b>	PRAG 2.1 Understanding impact of missing information	PRAG 2.2 Understanding impact of excessive information	PRAG 2.3 Understanding relevant and irrelevant information	PRAG 2.4 Understanding information requirements in personal conversation	
<b>PRAG 3</b> <b>Improving turn-taking skills</b>	PRAG 3.1 Understanding how to take turns	PRAG 3.2 Understanding verbal turn-taking	PRAG 3.3 Consolidating turn-taking skills		
<b>PRAG 4</b> <b>Understanding and managing topic in conversation</b>	PRAG 4.1 Understanding topic in conversation	PRAG 4.2 Understanding topic change conventions	PRAG 4.3 Consolidating topic skills		
<b>PRAG 5</b> <b>Understanding and improving discourse style</b>	PRAG 5.1 Understanding different styles in interaction	PRAG 5.2 Understanding and using conventions of interaction style	PRAG 5.3 Consolidating interaction style		

**PRAG 2 Understanding information requirements**

PRAG 2 INFORMATION

**PRAG 2.1 Understanding impact of missing information**

PRAG 2.1.1 Understanding the concept of too much and not enough

PRAG 2.1.2 Too little information in a story

PRAG 2.1.3 Minimal answers in conversation

PRAG 2.1.4 Missing information and requests for clarification

PRAG 2.1.5 Using yes/no questions to check information

**PRAG 2.2 Understanding impact of excessive information**

PRAG 2.2.1 Understanding too much information

PRAG 2.2.2 Giving the game away

PRAG 2.2.3 Too much verbal information

PRAG 2.2.4 Too many questions

**PRAG 2.3 Understanding relevant and irrelevant information**

PRAG 2.3.1 Understanding the concept of relevance

PRAG 2.3.2 Understanding the impact of irrelevant talk

PRAG 2.3.3 Relevant and irrelevant speech acts

PRAG 2.3.4 Known and not known information

PRAG 2.3.5 Relevant and irrelevant information

**PRAG 2.4 Understanding information requirements in personal conversation**

PRAG 2.4.1 Understanding information requirements (personalised)

# Sample therapy activity

---

**PRAG**  
**2.2.2**

**PRAG 2.2 UNDERSTANDING IMPACT OF EXCESSIVE INFORMATION** Activity 2: Giving the game away

---

**PURPOSE AND TARGET**

The child will experience and understand the consequences of excessive or irrelevant information

---

**MATERIALS**

Guess Who game or similar barrier game activity. Puppet who doesn't understand the game and keeps giving the answers. Red traffic light card saying 'STOP! You're giving the game away!' Green traffic light card saying 'OK, I understand!'

---

**PROCEDURE**

Introduce the activity by saying that you're going to play a guessing game with the puppet. Explain to the puppet that the child doesn't know/ can't see the picture and the game is not to tell the answer. Play the Guess Who game with the practitioner acting for the puppet. When the puppet gives the right answer, show the green card and say "Well done, that was just right." When you are sure that the child understands the game, make the puppet give too

---

# Additional therapy actions

Suggestions for work at home

Background information for teaching staff/carers on specific objectives

Examples of language associated with that objective for home practice

Information sheets for teaching staff/carers for each Section

Requests for personalised examples around a specific objective from carers

Additional materials for practitioners for that objective which can be substituted into the therapy activities

# Specialist therapy

## Phase 1

- Establish rapport
- Repeat with variations
- Revise/probe

## Phase 2

- Individual profile
- Integrate across SUSI/  
PRAG/LP
- dynamic

## Phase 3

- Revision of Phase 2 skills
- Integrate/generalise Phase  
2 skills into designed  
activities



Phase 1

- Universal
- Preparatory

Phase 2

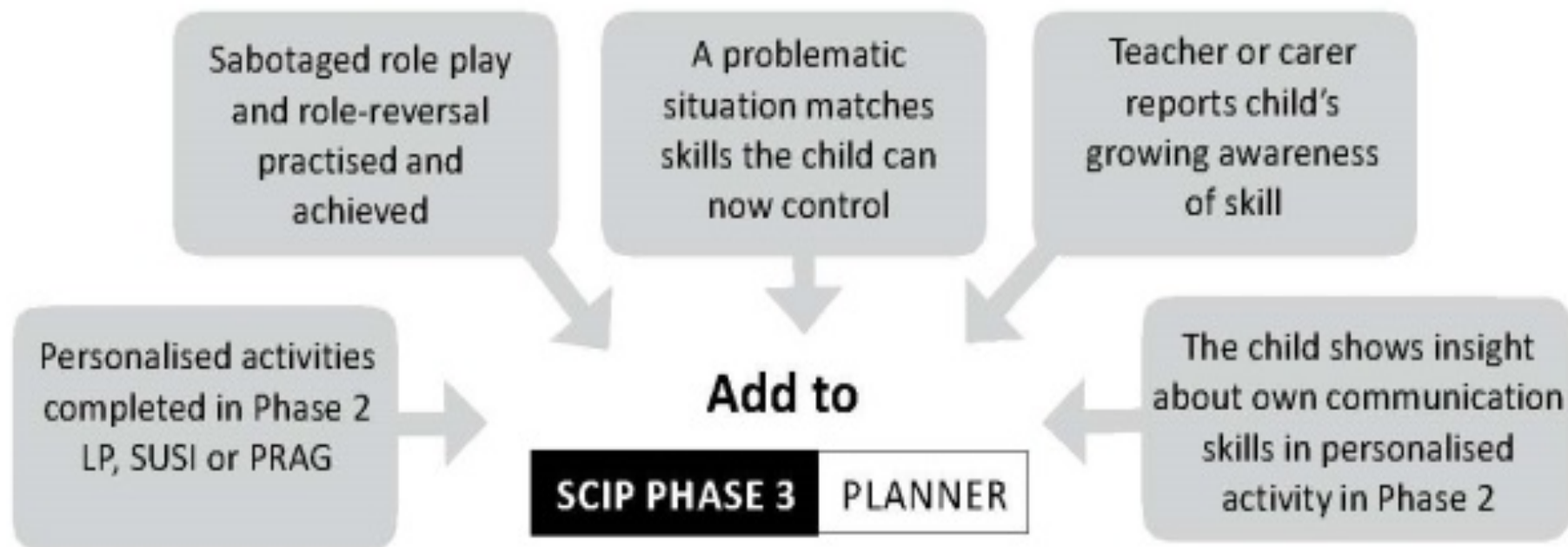
- Main phase of therapy
- Individualised plan and content

Phase 3

- Personalised content
- Blends phase 2 with real life practice

## SCIP Phase 3

- Integration of goals from across LP/SUSI/  
PRAG
- Focus on generalisation
- Personalisation
- Preparation for and reflection on real events



Update the child's DISCC and select up to 4 situations to be covered in Phase 3. Summarise the nature of the situation, the child's current interaction and the carer/teacher preferred outcome. Identify the Phase 2 objectives relevant to the success of each situation selected for Phase 3 practice and ensure these have been covered in Phase 2. Complete one for each Phase 3 goal. Copy to carers and teachers.

Problematic situation and desired outcome

*Write a brief description of a problematic situation or social interaction and carer/teacher desired outcomes taken from the child's DISCC*

Personalised objective (s) for this situation

*Write a set of personal objectives for this situation to reflect the skills needed to make changes and achieve the desired outcome*

Phase 2 Objectives

*Record the Phase 2 objectives that are needed to support Phase 3 practice for this situation. Materials and targets from these objectives will inform the personalised activity in Phase 3.*

For each problematic situation and desired outcome write a personalised activity and identify the relevant Phase 2 Objectives. Copy to carer and teacher after the session. Photocopy additional personalised activity sheets as necessary.

**Activity title** *Visiting Granny on Sunday*

**Purpose /personalised objectives**

*To help Daniel to understand the impact of not greeting Granny and not answering her questions in terms of her feelings and their relationship. He will understand the impact of obsessive topics on social interaction and practice greetings in role play and be able to answer Granny's question 'What have you done at school this week?'*

**Phase 2 Objectives relevant to this activity**

*PRAG 1.4.2, PRAG 4.3.1 and 4.3.2*

*LP 2.2.1, LP 2.2.4*

*SUSI 2.3.1, SUSI 5.1.2*

**Materials**

*Blank cards, pens and pencils for drawings*

*Speech bubble post-it notes*

**Procedure**

*Start Stage 1, the non-personalised part of the Phase 3 activity, by drawing a story of a child (Mary) who visits her Granny (or Auntie) and doesn't say hello or chat on the separate blank cards [LP2.2.1]*

*Role-play the scene acting it out as it happens in this story*

*Make links to Granny's feelings when the girl ignores her [SUSI 2.3.1] / that the girl is thinking about her favourite topic and not listening to Granny [PRAG 4.3.1 and 4.3.2]*

*Explain that Granny loves the girl and wants to know what she has been doing. She is interested in her week [SUSI 5.1.2]*

*Repeat the role play asking Daniel to suggest changes that could make it better*

*Draw some of these changes and add them to the story to show where the change needs to happen.*

*Draw a solution, i.e. saying hello on the back of the card where the girl was shown saying nothing and turn it over to discuss what happens when she said hello, what happens when she doesn't?*

*[PRAG 1.4.2]*

*Start Stage 2 (relating to self)*

*Make links to Daniel's own experience of visiting his Granny. Ask, "What happens when you visit your Granny?"*

*Draw the event as reported by carers [LP 2.2.4]*



- Connor is 8;4 years old
- Has visit from SLT three times a year
- Has a learning support assistant in school
- History of language delay
- Normal hearing
- non-verbal intelligence was within normal limits at school entry
- receiving support for literacy and numeracy in small groups



# Connor's assessment

CELF + above  
sentence level  
comprehension

Inferential  
comprehension  
(ACE 6-11)

Non-literal  
language

Discourse level  
comprehension  
(ERRNI)

Narrative  
construction

Meaning in  
context  
(TOWK)

Assessment	Standard Score (95%CI) (or raw score)	Percentile or explanatory note
TROG-2	85	16
CELF-4 CL score	56	< 1
CELF-4 RL SS	71	3
CELF-4 EL SS	55	< 1
ERRNI-I SS	88	22
ERRNI-C SS	<u>104</u>	61
ACE 6-11 Naming	5	5
ACE 6-11 NLC subtest	3	1
BPVS – 2	77	6
CCC- 2 GCC	41 (raw score)	Scores ≤ 58 indicate communication impairment
Raven's CPM	30 (raw score)	75-90
Parent SDQ total score	18 (raw score)	Higher scores show more impairment. Available range 0-40. Mean for 5-15 year old UK sample (N=5153) = 9.1
<b>TOPICC category scores</b>		
• Responsiveness/turn-taking	3 (raw score)	<b>Note: no normative scores are available for the TOPICC. Most typical children would achieve scores of 0 on all categories. The maximum total 'error' score is 18. (see key for TOPICC scoring guide)</b>
• Discourse style	3 (raw score)	
• Response problems	2 (raw score)	
• Appreciation of listener knowledge	1 (raw score)	
• TOPICC total time 1	9 (raw score)	
<b>MIPO subscales</b>	<b>Connor Time 1</b>	<b>SCD mean higher score shows more impairment</b>
• Pro-social	48	35
• Conflict Management	25	32
• Caregiving/Confiding	25	29



## Personal Information Record

*Connor*

Information from Carers /Teachers	Record the response here
Describe events in the child's typical day and week (including weekend)	<i>Goes to school club twice a week after school; Swimming on Tuesday nights; plays football with Dad at weekend and goes to see big sister and new baby then too</i>
Describe the child's interests including any unusual or strong interests	<i>Nintendo and Wii games are the biggest interests that he has. Likes to play football and go for walks</i>
Describe the child's relationships with peers and siblings including friendships	<i>Doesn't really play out with friends or have friends around. Has one big and one little sister - not really in his age group but he loves playing games with little sister. Doesn't like it when she messes with his stuff.</i>

# Sample from the Difficulties with Social Situations Checklist

## Difficulties with Social Situations Checklist

**Brief description of situation or interaction**

**Preferred Outcome**

*Going to supermarket to do just a small grocery shop can cause huge rows and he lies down on the floor and refuses to budge - causes embarrassment and sometimes shouts and kicks mum. Gets frustrated when he has to go.*

*Mum would like him to be able to understand that the shopping will only take a few minutes. To be able to walk around the aisles and stay close to her.*

*To understand that lying on the floor makes the trip longer and more stressful for everyone.*

*To be able to help by finding one of the items and putting it in the basket.*

<b>Phase I Section</b>	<b>Phase I Objective and Activity</b>
<b>Comprehension monitoring CM</b>	CM 1: Understanding the concept of knowing and not knowing CM 2: Understanding the concepts of guessing and working out CM 3: Strategies to signal non-comprehension CM 4: Asking for repetition
<b>Introduction to understanding social context USC</b>	USC 1: Making simple inferences from familiar sequences USC 2: Identifying social context from behaviours and language USC 3: Describing behaviours and language for social contexts USC 4: Identify and repair errors in behaviour and language
<b>Basic metapragmatic awareness MPA</b>	MPA 1: Listening for content MPA 2: Understanding behaviours associated with listening MPA 3: Developing metapragmatic vocabulary MPA 4: Listener-speaker role play
<b>Basic Narrative BN</b>	BN 1: Understanding vocabulary for sequencing BN 2: Making simple inferences from pictures BN 3: Simple sequencing BN 4: Simple Personal Stories
<b>Introduction to emotions in context EM</b>	EM 1: Matching pictures and symbols to facial expressions EM 2: Linking emotions to events EM 3: Emotions Thermometer EM 4: Eye gaze, facial expression and meaning
<b>Introduction to friendship FR</b>	FR 1: Understanding vocabulary of friendship FR 2: Understanding personal interests FR 3: Understanding others' interests FR 4: Understanding shared interests

Phase I Section	Phase I Objective and Activity
<b>Comprehension monitoring</b> <b>CM</b>	CM 1: Understanding the concept of knowing and not knowing CM 2: Understanding the concepts of guessing and working out CM 3: Strategies to signal non-comprehension CM 4: Asking for repetition
<b>Introduction to understanding social context</b> <b>USC</b>	USC 1: Making simple inferences from familiar sequences USC 2: Identifying social context from behaviours and language USC 3: Describing behaviours and language for social contexts USC 4: Identify and repair errors in behaviour and language
<b>Basic metapragmatic awareness</b> <b>MPA</b>	MPA 1: Listening for content MPA 2: Understanding behaviours associated with listening <del>MPA 3: Developing metapragmatic vocabulary</del> <del>MPA 4: Listener-speaker role play</del>
<b>Basic Narrative</b> <b>BN</b>	BN 1: Understanding vocabulary for sequencing BN 2: Making simple inferences from pictures BN 3: Simple sequencing BN 4: Simple Personal Stories
<b>Introduction to emotions in context</b> <b>EM</b>	<del>EM 1: Matching pictures and symbols to facial expressions</del> <del>EM 2: Linking emotions to events</del> EM 3: Emotions Thermometer EM 4: Eye gaze, facial expression and meaning
<b>Introduction to friendship</b> <b>FR</b>	FR 1: Understanding vocabulary of friendship FR 2: Understanding personal interests FR 3: Understanding others' interests FR 4: Understanding shared interests

# Phase I Activity example Connor

Phase I Understanding social context

Activity USC 2: Describing behaviours and language for social contexts

**Purpose:** To enable the child to describe social contexts by the expected behaviours and language, including social contexts that he finds personally challenging

## **Materials**

Pictures of social contexts and scripts as for USC I, including new contexts and pictures and scripts for situations the child finds difficult in real life

## **Procedure**

Following from USC I engage the child in role reversal to allow him the chance to describe social contexts by behaviour and language

Guide the child to describe one context by expected behaviours first

Collect those that the child describes accurately as you 'win' the cards

Repeat saying, *this time give me a clue what someone will say*

Repeat and scaffold until the child can give examples of behaviour and language for all contexts

Observe the child's performance on familiar, unfamiliar and personally challenging contexts

## **Input Guidance**

Observe the child's responses and if he is unsuccessful or is finding the task too easy react in one of the following ways:

Ways to make the activity easier:

Ask questions to scaffold the child's descriptions e.g. 'Can I run around?'

Use choices e.g. 'Am I inside or outside?'

Take turns to describe a context

Ways to increase complexity:

Use less familiar contexts

## Mapping assessment to intervention

- Established route from assessment results to set of individual intervention goals in Phase 2
- Activities taken from manual of intervention
- Overall strengths as well as weaknesses
- Parent and teacher priorities included in planning
- Expert planning and prioritisation

## CONNOR'S Phase 2 Intervention Content Table

<b>SUSI 1</b> <b>Understanding social context cues in interactions</b>		<b>PRAG 1</b> <b>Conversation and metapragmatic skills</b>		<b>LP 1</b> <b>Vocabulary and Word Knowledge</b>	
<b>SUSI 2</b> <b>Understanding emotion cues in interactions</b>		<b>PRAG 2</b> <b>Understanding information requirements</b>		<b>LP 2</b> <b>Improving Narrative Construction</b>	
<b>SUSI 3</b> <b>Understanding and practising flexibility</b>		<b>PRAG 3</b> <b>Improving turn-taking skills</b>			
<b>SUSI 4</b> <b>Understanding thoughts and intentions of others</b>		<b>PRAG 4</b> <b>Understanding and managing topic in conversation</b>		<b>LP 4</b> <b>Discourse Comprehension</b>	
<b>SUSI 5</b> <b>Understanding friendship</b>		<b>PRAG 5</b> <b>Understanding and improving discourse style</b>		<b>LP 5</b> <b>Enhanced Comprehension Monitoring</b>	

Block 1	Block 2	Block 3
<b>Language Processing Component (LP)</b>		
<p><b>LP2 Improving narrative construction</b> LP 2.1 Understanding inferences in picture sequences</p> <p><b>LP 1 Vocabulary and Word Knowledge</b> LP 1.1 Understanding semantic relationships between words LP 1.2 Consolidation and self-cueing</p>	<p><b>LP 1 Vocabulary and Word Knowledge</b> LP 1.3 Vocabulary Enrichment</p> <p><b>LP 2 Improving narrative construction</b> LP 2.2 Telling complex and personalized stories LP 2.3 Constructing novel stories with plot</p> <p><b>LP 4 Discourse Comprehension</b> LP 4.1 Improving memory and listening LP 4.2 Understanding verbal inferences</p> <p><b>LP 5 Enhanced Comprehension Monitoring</b> LP 5.1 Text level comprehension monitoring</p>	<p><b>LP 2 Improving narrative construction</b> LP 2.3 Constructing novel stories with plot</p> <p><b>LP 4 Discourse Comprehension</b> LP 4.2 Understanding verbal inferences LP 4.3 Understanding stories</p>
<b>Pragmatics Component (PRAG)</b>		
<p><b>PRAG 1 Conversation and metapragmatic skills</b> PRAG 1.1 Enhanced listening skills PRAG 1.2 Understanding speaker roles PRAG 1.3 Giving Information PRAG 1.4 Understanding reciprocity PRAG 1.4 Understanding reciprocity PRAG 1.5 Developing metapragmatic awareness</p>	<p><b>PRAG 2 Understanding information requirements</b> PRAG 2.2 Understanding impact of excessive information PRAG 2.3 Understanding relevant and irrelevant information PRAG 2.4 Understanding information requirements in personal conversation</p>	<p><b>PRAG 4 Understanding and managing topic in conversation</b> PRAG 4.1 Understanding topic in conversation PRAG 4.2 Understanding topic change conventions PRAG 4.3 Consolidating topic skills</p>
<b>Social Understanding and Social Interpretation Component (SUSI)</b>		
<p><b>SUSI 1 Understanding social context cues in interactions</b> SUSI 1.1 Understanding Non-verbal cues in context SUSI 1.2 Understanding and solving problems in social contexts</p> <p><b>SUSI 2 Understanding emotion cues in interactions</b> SUSI 2.1 Building emotion vocabulary</p>	<p><b>SUSI 2 Understanding emotion cues in interactions</b> SUSI 2.2 Enhanced emotion vocabulary SUSI 2.3 Understanding complex feelings</p> <p><b>Integrated activity</b> Using emotional vocabulary in social contexts = SUSI 2.1 with SUSI 1.2</p>	<p><b>SUSI 4 Understanding thoughts and intentions of others</b> SUSI 4.1 Signalling feelings and intentions (non-verbal) SUSI 4.2 Predicting thoughts and intentions SUSI 4.3 Understanding mismatch of language and thoughts SUSI 4.4 Understanding complex intentions</p>



## Outcome measures for Connor at Time 1, Time 2 and Time 3

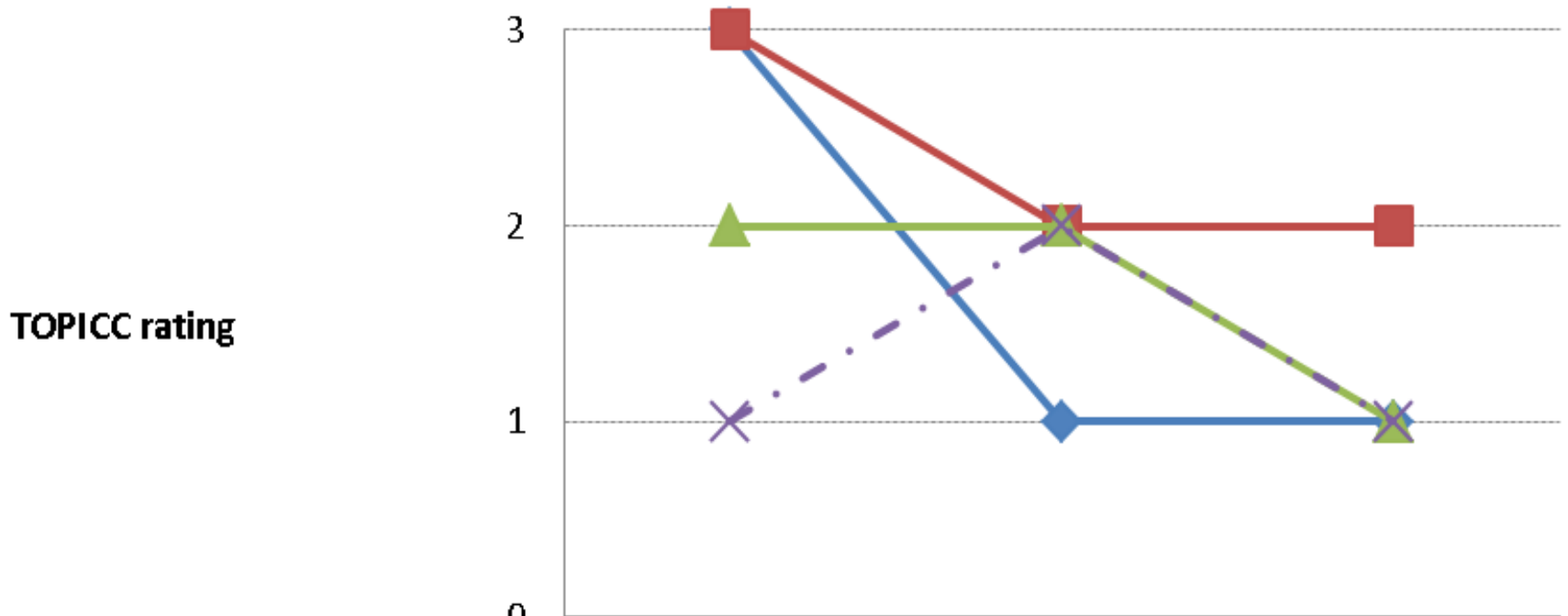
<b>Outcome measure</b>	<b>Time 1 Before intervention</b>	<b>Time 2 Immediately after intervention</b>	<b>Time 3 Six months after Time 2</b>
<b>CELF-4 Core Language Score (95%CI)</b>	56 (50-62)	58 (52-64)	70 (64-76)
<b>CELF-4 Receptive Language SS (95%CI)</b>	71 (62-80)	86 (77-95)	88 (79-97)
<b>CELF-4 Expressive Language SS (95%CI)</b>	55 (48-62)	55 (48-62)	59 (52-66)
<b>TOPICC scores</b>			
Responsiveness/turn-taking	3	1	1
Discourse style	3	2	2
Response problems	2	2	1
Appreciation of listener knowledge	1	2	1
TOPICC total scores	9	6	5
<b>Parent Reported Outcomes PR-T2 and PR-T3 (Time 2 and Time 3 only)</b>	PR-LS	Improved	Don't know
	PR-SC	Improved	Improved
	PR-SS	Stayed same	Improved
	PR-PR	Improved	Improved
<b>Teacher Reported Outcomes TR-T3 (Time 3 only)</b>	TR-LS		Improved
	TR-SC		Improved
	TR-SS		Improved
	TR-PR		Stayed same

~ a lower score indicates improvement on TOPICC

PRO and TRO components: LS = Language Skills; SC = Social Communication; SS = Social Skills; PR = Peer relations

CELF- 4 UK Subtest	<i>CONNOR</i>	Time 1	Time 2	Time 3*
<b>Receptive language</b>				
<b>Concepts and following directions</b>		4	5	<b>9</b>
<b>Word classes receptive</b>		9	7	<b>7</b>
<b>Sentence structure</b>		3	11	-
<b>Expressive language</b>				
<b>Word structure</b>		4	4	-
<b>Recalling sentences</b>		1	3	<b>3</b>
<b>Formulated sentences</b>		<b>3</b>	<b>1</b>	<b>2</b>

Figure 1: Connor's TOPICC outcome ratings by pragmatic feature



	Time 1	Time 2	Time 3
◆ Responsivity/Turn-taking	3	1	1
■ Discourse Style	3	2	2
▲ Response Problems	2	2	1
× Appreciation of Listener Knowledge	1	2	1

# Some relevant reading

- Adams, C. (2013) Pragmatic Language Impairment. In F.R Volkmar (Ed.) *Encyclopedia of Autistic Spectrum Disorders*. New York: Springer p3429.
- Adams, C. & Gaile, J. (2015) *The Social Communication Intervention Programme (SCIP): Manual, Rationale and Intervention Resource*. Cheshire: Napier Hill Press.
- Adams, C., Lockton, E., Gaile, J., Freed, J., Earl, G., McBean, K., Nash, M., Green, J., Vail, A. & Law, J. (2012a) The Social Communication Intervention Project: A randomised controlled trial of the effectiveness of speech and language therapy for school-age children who have pragmatic and social communication problems with or without autism spectrum disorder. *International Journal of Language and Communication Disorders*, 47, 3, 233-244.
- American Psychiatric Association (2013) *Diagnostic and statistical manual of mental disorder proposed (DSM V) (5<sup>th</sup> ed.)* DSM-5.com. Washington, DC: American Psychiatric Association.
- Bishop, D.V.M. (2000) Pragmatic Language Impairment: a correlate of SLI, a distinct subgroup, or part of the autistic continuum? In D.V.M. Bishop and L. Leonard (Eds.). *Speech and Language Impairments in Children: Causes, Characteristics, Intervention and Outcome*. Hove: Psychology Press.
- Bowers, L. & LoGiudice, C. (2008) *Social Language Development Test Elementary*. East Moline, IL: LinguSystems.
- Brinton, B., Robinson, L. A., & Fujiki, M. (2004). Description of a Program for Social Language Intervention: If You Can Have a Conversation, You Can Have a Relationship. *Language, Speech, and Hearing Services in Schools*, 35, 283-290.
- Freed, J., Adams, C., & Lockton, E. (2011). Literacy skills in primary school-aged children with pragmatic language impairment: a comparison with children with specific language impairment. *International journal of language & communication disorders*, 46(3), 334-347.
- Fujiki, M., & Brinton, B. (2009) Pragmatics and social communication in children language disorders. In R. Schwartz (Ed.) *The Handbook of Child Language Disorders*. New York; Psychology Press. p407-423
- Gerber, S., Brice, A., Capone, N., Fujiki, M., & Timler, G. (2012) Language use in social interactions of school-age children with language impairments: an evidence-based systematic review of treatment. *Language, Speech and Hearing Services in the Schools*, 43, 235-249.
- Gibson, J., Adams, C., Lockton, E., & Green, J. (2013). Social communication disorder outside autism? A diagnostic classification approach to delineating pragmatic language impairment, high functioning autism and specific language impairment. *Journal of Child Psychology and Psychiatry*, 54(11), 1186-1197.
- Norbury, C. F. (2014). Practitioner review: social (pragmatic) communication disorder conceptualization, evidence and clinical implications. *Journal of Child Psychology and Psychiatry*, 55(3), 204-216.
- Phelps-Terasaki, D., & Phelps-Gunn, T. (2007) *TOPL-2 Test of Pragmatic Language Second Edition*. East Moline, IL: LinguSystems.
- Timler, G., Olswang, L., & Coggins, T. (2005). "Do I know what I need to do?" A social communication intervention for children with complex clinical profiles. *Language, Speech, and Hearing Services in Schools*. 36, 73-85
- Whitehouse, A. J., Watt, H. J., Line, E. A., & Bishop, D. V. (2009). Adult psychosocial outcomes of children with specific language impairment, pragmatic language impairment and autism. *International Journal of Language & Communication Disorders*, 44, 511-528.

## Some published therapy resources used in the SCIP Trial

Resource (author)	Available from
<b>Winslow Press</b> Understanding social behaviour cards Occupation cards Colour library vocabulary sets Verb Colourcards	<a href="http://www.winslowresources.com/">http://www.winslowresources.com/</a>
<b>Black Sheep Press</b> Talkabout Friends Talkabout School Picture Sequences (3-8 items) Practical Pragmatics Speaking and Listening Pack Speech bubbles	<a href="http://www.blacksheepress.com">http://www.blacksheepress.com</a>
<b>Schubi picture sequences</b> Tell About It Sentimage Combimage	<a href="http://www.winslowresources.com/">http://www.winslowresources.com/</a>
<b>Fun Decks</b> Emotions Multiple meanings Why – Because	<a href="http://www.superduperinc.com">http://www.superduperinc.com</a>
<b>Talkabout</b> Developing Social Communication Skills	<a href="http://www.speech-therapy.org">http://www.speech-therapy.org</a>
Think It Say It – Improving Reasoning and Organisation Skills	<a href="http://www.proedinc.com">http://www.proedinc.com</a>
120 Idioms At Your Fingertips	Various sources
Introducing Inference	<a href="http://www.taskmasteronline.co.uk">http://www.taskmasteronline.co.uk</a>
Reading Comprehension Key Stage 1 Stories	<a href="http://www.schofieldandsims.co.uk">http://www.schofieldandsims.co.uk</a>
Scholastic Literacy Skills Comprehension (ages 5-7)	<a href="http://shop.scholastic.co.uk/products/23054">http://shop.scholastic.co.uk/products/23054</a>