Metacognition in speech and language therapy for children with pragmatic language impairment: Implications for a theory of therapy

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**Metacognition in speech and language therapy for children
with social (pragmatic) communication disorders:
Implications for a theory of therapy**

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Abstract

Background: Metacognition is a significant component of complex interventions for children who have developmental language disorders. Research into how metacognition operates in the content or process of developmental language therapy delivery is limited. Identification and description of proposed active therapy components, such as metacognition, may contribute to our understanding of how to deliver complex communication interventions in an optimal manner.

Aims: To analyse aspects of metacognition during therapy derived from a manualised speech and language intervention (the Social Communication Intervention Programme or SCIP) as delivered to children who have Social (Pragmatic) Communication Disorder (SPCD) and to examine the dynamic process of delivering therapy.

Methods and procedures: A purposive sample of eight filmed therapy sessions was selected from the video data corpus of intervention arm participants within a randomized controlled trial. The child/therapist interactions during therapy sessions from five children (aged between 5;11 and 10;3) in the SCIP trial was transcribed. Filmed sessions represented a variety of communication profiles and SCIP therapy content. Starting from existing theory on metacognition, cycles of iterative analysis were performed using a mixed inductive-deductive qualitative analysis. A preliminary list of metacognitive content embedded in the intervention was developed into a Metacognitive Coding Framework (MCF). A thematic analysis of the identified metacognitive content of the intervention was then carried out across the whole sample.

Revised version. Metacognition in pragmatics therapy

Outcomes and results: Thematic analysis revealed the presence of metacognition in the content and delivery of SCIP intervention. Four main themes of metacognitive person, task and strategy knowledge and monitoring/control were identified. Metacognition was a feature of how children's ability to monitor language, pragmatic and social interaction skills, in themselves and other people, developed. Task design and delivery methods were found to play a particular role in adjusting the metacognitive content of the therapy activities.

Conclusions and implications: This study makes explicit the metacognitive content and delivery within a complex developmental communication intervention. Discussion of the findings about metacognitive content provides an explanation of how the skilled speech and language therapist manipulates task demands, person knowledge and therapy methods towards the therapy goal. Clinical applications of the metacognitive framework are discussed. We suggest that the process of making the tacit knowledge of the therapist explicit can contribute to the implementation of complex evidence based interventions.

What is already known on this subject

The presence of metacognitive strategies is widely acknowledged and purposely planned in developmental language interventions. However, metacognitive content of therapy is largely tacit in the intervention process and there is no explicit description of the manipulation of metacognition as a factor in such therapies. There is no existing research on metacognition in therapy for children with SPCD.

What this study adds

Metacognition was observed in how speech and language therapists adjusted therapy tasks, from teaching language, pragmatic or social interaction skills to teaching children how to

monitor these skills in themselves and others. Greater specification of the therapy process can contribute to the successful implementation and development of evidence-based interventions.

Clinical implications of this study

Analysis of the metacognitive content of SCIP therapy revealed that therapy tasks have dual demands: to learn the skill and to self-monitor one's use of the skill. The analysis presented explains how the practitioner's skilled manipulation of therapy tasks, methods, materials and goals takes place to enable the child to make progress and generalise. This has implications for both training of practitioners and supporting carers and assistants to deliver complex developmental language interventions.

Background

Complex speech and language therapy interventions have multiple components, only some of which may be 'active' ingredients that influence communication changes (Medical Research Council 2015). Clinical trials require that therapy content is set out in a manual, but otherwise detailed accounts of content are rare in speech and language therapy (SLT). In addition, the nature and quality of the interaction between practitioner and client during therapy delivery is rarely specified. Investigation of therapy delivery, however, could contribute to the development of "specific conceptual models to explain those processes that are responsible for therapeutic change" (Kazdin, 2007 p. 16). Kazdin suggests that investigation using broader theoretical concepts as a guide may provide new insights into how therapeutic effects are achieved. Qualitative inquiry, for example, can be used to scrutinise clinical practice and in the process reveal tacit knowledge and actions (Malterud 2001).

One such theoretical concept and tacit element of SLT practice is metacognition. Metacognition is the process by which an individual thinks about, monitors and controls his/her own thinking processes in order to learn (Hacker, Dunlosky and Graesser 1998). As a component of SLT intervention, metacognition is commonly used across a range of developmental language and phonology therapies, but it has rarely been the focus of systematic research. In an analysis of the therapy rationales of experienced paediatric SLTs, tacit categorisation of therapy tasks as either metacognitive or skills acquisition was revealed (Law, Campbell, Roulstone, Adams and Boyle 2008). Tasks to develop explicit language skills were considered as skills acquisition, while those aimed at improving the child's ability to reflect on the process of learning about language were metacognitive. In a

study of written accounts of therapy for adults with acquired aphasia, Byng and Black (1995) hypothesised that mechanism of change associated with intervention was related to metacognitive tasks that utilised problem-solving skills.

Findings from Law et al. and Byng and Black's studies resonate with theoretical accounts of metacognition as a process of reflection on both how one is performing and learning, and on the role of error detection and correction as a feature of monitoring and controlling one's actions while learning (Veenman, Van Hout-Wolters and Afflerbach 2006). Neither Byng and Black nor Law et al, however, make the nature of metacognition in SLT explicit. If, as Byng and Black propose, the mechanism of change, i.e., metacognition, lies in the interaction of the therapist with the individual *and* the therapy materials to progress to the therapy goal, then an examination of actual therapeutic interactions may be able to reveal the metacognitive content. In order to test to what extent metacognition can be considered to contribute to a mechanism of change, it is necessary to firstly identify its presence in therapy. A first step would therefore be to provide a rich description of the nature of metacognition in an intervention with proven effectiveness and to attempt to systematically analyse therapy delivery with explicit reference to the theoretical literature on metacognition.

This research investigated the nature of metacognition in the delivery of a complex intervention, as delivered within a randomised controlled trial of speech and language therapy for children who have Social (Pragmatic) Communication Disorder (SPCD)¹. Children with SPCD have disproportionate difficulty in the development of pragmatics (using spoken language for conversation and social interaction), subtle difficulties with high-level language

¹ SPCD is defined in the DSM V Diagnostic Manual (American Psychiatric Association 2013) and has replaced the previous label of Pragmatic Language Impairment

processing such as making inferences and have features of both language impairment (LI) and autistic traits (Norbury 2014), although they do not meet diagnostic criteria for autism. The trial intervention was the Social Communication Intervention Programme (SCIP), a manualised treatment containing instructions and resources for the delivery of SLT for children with SPCD by a skilled practitioner or trained therapy assistant (ThA) (Adams et al. 2012a, Adams et al. 2012b). The SCIP intervention manual contains three main components, Language Processing, Pragmatics and Social Understanding and Social Interpretation, and includes therapy directed at improving the child's metacognitive and metapragmatic skills (Adams and Gaile 2015).

Research on metacognition has spanned both the theoretical aspects of it as a human phenomenon and its application in educational settings (Veenman et al 2006). Derived from the seminal work of Flavell (1979), metacognition is now generally agreed to be a combination of knowledge and skill. Metacognitive knowledge is made up of *person*, *task* and *strategy* knowledge. *Person* knowledge is the ability to think about what one knows, to recognise comprehension failure and have insight into how learning is best achieved. *Task* knowledge permits understanding of the cognitive demands and goals of a task. *Strategy* knowledge is an understanding of what strategies one knows how to use and judging their relevance and effectiveness on a particular task.

Children's metacognitive knowledge and skills develop alongside each other, showing emergence at around three years and continuing to develop into adolescence (Veenman et al 2006). Implementation of metacognitive training in child education research is well advanced (Dignath and Büttner 2008). In reading comprehension research for example, metacognitive training has aimed to teach children 'why' some strategies are more effective

than others by engaging them in thinking about 'what' strategy they need, 'when' and 'how' to use it – the What, When, Why and How rule (Veenman et al 2006).

By contrast, the evidence base for metacognitive training in SPCD and other types of developmental language disorders is sparse (Gerber et al 2012). This is despite indications that metacognition is a vulnerable area of development for children with language disorder (Skarakis-Doyle and Dempsey 2008). Dollaghan and Kaston (1986) carried out a training study of comprehension monitoring skills (a type of metacognitive skill) with four school-aged children who had developmental language disorder. Children were taught to monitor their understanding of instructions in repeated practice using explicit feedback and specific encouragement to detect errors in the instructions. The metacognitive skill of controlling *person* knowledge was taught by use of one main strategy to request clarification more and more precisely as therapy progressed. Preliminary evidence of an effect was demonstrated; at the end of intervention, all four children had increased their requests for clarification of inadequate messages and the effect was maintained.

An analysis of metacognitive content on its own is insufficient for providing information about *how* therapy is done. Byng and Black (1995) examined the components of intervention across a number of studies of adults with acquired aphasia and conceptualised therapy as having both a form and a process. The form of therapy is made up of goals, tasks and materials and is derived from an assessment of the language-impaired individual's strengths and needs. The process of therapy is the way that the SLT controls the therapeutic tasks, materials and her/his own interaction with the individual to manage progress towards the therapy goals. Law et al (2008) analysed the rationales for practice of fifty-six SLTs treating children with receptive language impairments and proposed a *theory of therapy* for

this area of practice which has multiple components: developmental knowledge; established models or principles of therapy; the context and location of therapy delivery; and the person who delivers the therapy. Law et al (2008) were successful in making explicit the *form* of therapy, i.e., goals, tasks and materials, and SLTs' tacit conceptualisation of metacognition as a therapy goal. However, this study did not examine the interactional and dynamic components of therapy delivery – that is, the *process* of how therapy is delivered.

The current study aimed to investigate both the metacognitive therapy form and the metacognitive therapy process in therapist-child interactions during SCIP trial intervention. No previous attempt in the research literature to examine the role of metacognition in SLT form and process in child-directed SLT has been identified.

Aims

The present study aimed to investigate the nature of metacognition in the content and delivery of SCIP intervention for children who have SPCD, using a qualitative analysis of filmed therapy sessions from the SCIP trial corpus of data. The analysis aimed to develop a means of identifying metacognitive content in a purposive sample of interactions between SLTs and children in a representative set of SCIP therapeutic tasks. The study also aimed to develop a means of describing the metacognitive content within the therapeutic process and to make explicit the implicit, dynamic decision-making process of skilled practitioners during intervention.

Methods and procedures

Materials

Data for this study are video recordings of speech and language therapy sessions with children who have SPCD drawn from the video data corpus of The Social Communication Intervention Project, a controlled trial in which the SCIP manual of intervention was compared to treatment as usual (Adams et al 2012a).

SCIP therapy sessions were video-recorded on high-quality digital video cameras. Recordings were made opportunistically by Research speech and language therapists (RSLTs) and therapy assistants (ThAs), ranged from 48-60 minutes long and showed the RSLT or the ThA working with one child in a schoolroom designated for withdrawal lessons. Verbal interaction of participants and the RSLT/ThA in each video recording in the sample was transcribed to provide a broad transcript of the content of the intervention session and the dialogue between the RSLT/ThA and the child undergoing SCIP intervention. Transcriptions were carried out using dual screen desktop computer with a video-pause facility and typed into a word-processed document for analysis. In addition to verbatim transcriptions of spoken content, non-verbal behaviours (e.g., turn of head, gesture, communicative facial expression, gesture, head shake/nod) were added to the transcript at the point of occurrence in the interaction. Paralinguistic/conversation features such as pausing, interrupting, changes in volume and pitch were noted in square brackets alongside the verbal turn content where the meaning of the verbal comment was enhanced or contradicted. Scripts provided for use in SCIP activities were recorded in italics. Examples of completed transcriptions can be seen in the results section.

Participants

The video data included in this study related to children who had taken part in the intervention arm of the SCIP trial. Ethical and research governance approval provided access to video data for eleven children. All children scored less than 55 on the General Communication Composite of the Children's Communication Checklist -2 (Bishop 2003), indicating the presence of communication impairment. In addition all participants scored equal to or greater than the 5th centile (approximately equal to a standard score of 75) on the Raven's Coloured Progressive Matrices (Raven 1979), indicating the presence of normal range non-verbal reasoning ability. Of the eleven possible participants, two had video recording of poor quality that could not be transcribed accurately and were excluded. Five participants were selected from the remaining nine on the basis of four factors: child profile to be representative of the SCIP trial cohort in terms of age, language ability and mild autistic features; examples of therapy delivery by RSLT and ThA, therapy sessions from different time-points in SCIP delivery (maximum of 20 sessions); and content from all three therapy components of the SCIP manual (see Table 1). A total of eight intervention sessions were chosen for analysis on this basis; utilising video data from all five children. Some children had two video recordings available and some had one. For the purposes of this study, there was no difference between children with two and children with one recording as both were filmed in interaction using SCIP therapy activities with the same therapist (except for participant 2). The clinical characteristics of this group are shown in Table 2.

Table 1 about here

Table 2 about here

Ethical approvals

The data used for analysis in the current study are video recordings of SLT intervention sessions gathered during the trial and were subject to ethical approval gained from the Northern and Yorkshire NHS Research Ethics Committee (REC No. 07/MRE03/3). Additional NHS Ethical approval was gained from the NRES Committee North West (Ref: 12/NW/0097) to use this pre-existing video data in the current study.

SCIP intervention

The SCIP therapy manual contains all the therapy activities delivered in the intervention period, arranged in three components: Social Understanding and Social Interpretation (SUSI); Pragmatics (PRAG) and Language Processing (LP); these are further subdivided into subcomponents (see list at bottom of Table 3). Children received an individualised intervention based on their profiles of need. Each subcomponent (e.g., PRAG 1 Conversation and metapragmatic skills) was further subdivided into objectives (e.g., PRAG 1.2 Understanding speaker roles) and then into therapy activities (e.g., PRAG 1.2.3 Understanding relevant and irrelevant questions). SCIP therapy activities specify the therapy goal for each activity, list appropriate materials and provide guidance on a procedure to deliver the activity including differentiation actions. Therapist verbal input feedback is not prescribed verbatim in the activities, although guidelines for input were included in assistant training. Guidelines on activities in the manual typically offer means of starting up a session and what to say to introduce an activity; they may also offer general guidance on making an activity easier or harder for the child by, for example, removing the number of prompts or increasing the complexity of the vocabulary involved. An example of

a therapy activity from the manual is included in the appendix in order to illustrate the type of instruction provided for the process of therapy.

Two RSLTs planned all therapy for all children. Both RSLTs had over fifteen years' experience of therapy planning and delivery for children with SCPD and developmental language disorder. Therapy assistants were graduates in psychology or speech and language therapy, all of whom had experience working with children with additional needs in mainstream schools. Training for ThAs consisted of an overview of the nature of SPCD, familiarisation with the SCIP therapy activities, therapy methods of role-play, role-reversal and sabotage, and in building and maintaining relationships with parents and staff. Therapist feedback was discussed within the context of using the manual's differentiation guidance (see therapy activity example in appendix) in relation to the child's failed and successful attempts on tasks, but was not scripted or specified, nor was metacognition expressly discussed.

Supervision of ThAs was designed to ensure consistent delivery of SCIP therapy. The RSLT provided individualised feedback on observations of live or video-recorded therapy sessions for each child on each assistant's caseload. Goals for general improvement were agreed and reviewed every two months. Treatment fidelity ratings were satisfactory (Adams et al 2012).

Table 3 about here

Reflexivity in the current study

Reflexivity is defined here as a process of documented "thoughtful, conscious self-awareness" which serves to evaluate the researcher's subjective experiences and responses and which assists in raising awareness of how knowledge is constructed (Finlay 2002 p532). Since the first author conceptualised the rationale and purpose of the study and carried out the thematic analysis, it is important that her background knowledge and approach to the

current study both in terms of data selection and analysis are transparent. Her reflexive account of her involvement with the study is included here, as information about how prior knowledge, training and context will have had an influence on the analysis. In the pre-research stage, the reflexive researcher examines her/his motivations for the choice of topic for study and attempts to understand their relationship to that topic. The first author recognised herself in the description of SLT practitioners provided by Law et al (2008) who conceptualised therapy as being primarily concerned with teaching language skills or teaching skills to cope with communication breakdown. Schön (1983) argued that practitioners who view each client as a 'universe of one' provide a particular perspective from which to view reflective practice. This concept prompted the first author to consider whether a detailed examination of SCIP intervention cases using a qualitative methodology may be the best way to understand practice further. This aim evolved into a recognition that she needed a model of therapy to map her experiences onto and an enhanced vocabulary to talk not just about the content of therapy but also of the mechanics of its delivery.

Planning and delivering SCIP therapy in a trial allowed the first author to acquire an in-depth knowledge of all therapy components, targets and activities within the manual. During the data collection/intervention stage of the SCIP trial, the first author was an RSLT with her own caseload as well as a ThA supervisor, so had an overview of the needs and progress, of all cases in the trial intervention arm. Being immersed in intervention planning and delivery, and using the SCIP manual daily, raised her clinical decision-making skills to a conscious level and provoked curiosity about mechanisms of change and essential ingredients of SCIP. Her background experience of training students and assistants is present in ThAs' SCIP training, in terms of modelling and demonstrating activities, and providing feedback on watching live

or recorded therapy sessions. A contributory assumption regarding training that the first author recognised in her own beliefs was that learning about the SLT process takes place primarily by watching others deliver it (Horton, Byng, Bunning and Pring 2004).

Method of analysis

The chosen method of analysis followed a qualitative methodology. A hybrid approach combining inductive and deductive thematic analysis was employed as a way of improving research quality (Fereday and Muir-Cochrane 2006). This enabled key theoretical concepts in metacognition to be identified and integrated into analysis at an early stage. The analysis procedure was conducted in two stages. In the first stage, potential themes in the spoken interactions (Boyatzis 1998 p4) were generated *deductively* from theory and preliminary analysis of a critical case. Thematic analysis encodes qualitative information. The endpoint of this stage was therefore a Metacognitive Coding Framework (MCF) that describes the set of identified themes in the deductive process only.

In the second stage of analysis, the *inductive* stage, themes were generated inductively from examination and reflection on the complete set of transcribed information. The inductive stage allowed patterns across the whole cohort of clinical interactions to be examined. It is to be expected that there will be some convergence between the information/ themes generated in the deductive and inductive stages but that additional insights may arise from inductive analysis.

The first author who was the main RSLT in the SCIP trial completed the analysis. The choice of a mixed inductive-deductive analysis using theory on metacognition to guide and constrain analysis was a deliberate attempt to constrain the first author's tacit knowledge of the intervention content and delivery. Prior knowledge of the intervention assisted in

identifying those activities where metacognition was explicitly targeted (for example, LP 5 Enhanced comprehension monitoring and PRAG 1 Conversation and metapragmatic skills) and to attempt to include them in analysis. Selection of the critical case, see below, was aided by knowledge of which children had been recorded completing these metacognitive activities although the choice of data to include was limited by ethical and research permissions.

Stage 1: Deductive analysis

The deductive process began by gathering key concepts and vocabulary from the literature on metacognition in childhood to generate a basic set of codes in a preliminary framework. Further deductive analysis continued with a critical case. The critical case, (Case 1, session 1 in Table 3) was selected to be the best example of the topic under investigation based on three criteria: 1) therapy had been delivered by an experienced SLT; 2) therapy included examples of activities targeting goals in all three components of SCIP Intervention; 3) therapy included the activities on comprehension monitoring (LP 5) and metapragmatics (PRAG 1) (Table 1) known to demand some level of metacognitive ability in the child.

The spoken interactions between therapist and child in the critical case were transcribed and analysed using the procedure shown in Table 4. Each utterance was allocated a code that described its purpose using metacognitive terminology.

Table 4 about here

The initial version of the MCF was then used to code the transcripts of the remainder of the sample of video data (N recordings = 7). Each transcript was studied to gain familiarity prior to coding. As each new case was analysed, previously unidentified codes were added to the

MCF in a process of iterative analysis. A new version of the MCF was created after each transcript had been coded *only* if new codes had emerged. The newest version of the MCF was then used for analysis of subsequent cases. Previously coded transcripts were re-examined to determine whether the new codes were present. The content of the MCF was finalised when no new codes emerged from analysis. At the end of this stage of encoding, separate codes were collated into four categories in a final MCF. We define category at this level as “a collection of similar data sorted into the same place” (Morse 2008 p727).

Category 1: Talking about tasks

Category 2: Talking about prior knowledge

Category 3: Talking about strategies

Category 4: Talking about monitoring

Stage 2: Inductive analysis

Once all therapy session transcripts had been coded, the inductive process of thematic analysis commenced. Thematic charts, as per the framework method of analysis (Ritchie and Lewis 2003), were prepared to represent all data allocated to the same code in one place. Grouping the data in this way provided additional insights into the metacognitive content of SCIP therapy across a number of cases, therapy activities and time points. Patterns across and within cases were identified. Main themes (“the essence that runs through the data” (Morse 2008 p727)) were developed based on *salience and meaningfulness of metacognitive concepts* within the context of SCIP intervention and not on the basis of frequency of occurrence in the transcripts. Through analysis, relationships between therapy components

were considered and changes in task materials or therapist actions came to be understood as associated with changes to the metacognitive demands of the task.

Results

The primary purpose of this research was to determine which aspects of metacognition could be identified in interactions during SCIP therapy with children with SPCD. The findings showed that SCIP therapy content and delivery contained elements of training both metacognitive knowledge (of person, task and strategy) and metacognitive skills of monitoring, control of thinking processes and strategy use. Task design and demands were found to play a particular role in adjusting the metacognitive content of the therapy activities.

Stage 1 Deductive analysis results: Metacognitive Coding Framework (MCF)

The content of the final MCF is shown in Table 5. Note that the complete set of codes is not shown for reasons of space but examples of codes are given in italics for category 4.

Table 5 about here

Table 5 shows the final MCF and the four coding categories identified in the deductive stage of the data analysis. Each category had a set of sub-categories and an embedded set of codes. For example, Category 4 'Talking about monitoring' contained a sub-category 4.1 Self-monitoring, which was further sub-divided into codes such as *Child monitors his comprehension* and *Child monitors his own feelings*.

Stage 2 Inductive analysis results

Revised version. Metacognition in pragmatics therapy

Four main themes of metacognition across therapy sessions were identified in the inductive analysis. The four themes and their proposed subsidiary themes are set out in Table 6.

Table 6 here

The four main themes and subsidiary themes are reported in turn along with illustrative examples from the data transcripts. Often therapy tasks provided opportunities to practise monitoring and control alongside developing metacognitive knowledge and so some overlap in themes is inevitable. Examples are reported with a note of the case number, session number, SCIP Intervention task number (e.g. PRAG 1.1.2) and either RSLT or ThA. All comments are attributed to the RSLT/ThA; comments from children are marked Child.

Theme 1: Training in metacognitive person knowledge

Metacognitive person knowledge in SCIP intervention was identified in three main areas: in specific SCIP activities designed to teach vocabulary and strategies to monitor comprehension (person knowledge), in reinforcing the use of these strategies in other SCIP activities and in therapy tasks designed to teach that other people have knowledge, thoughts, feelings and intentions.

a) Learning to talk about knowing and not knowing

Two SCIP tasks (LP 5.1.1 and LP 5.1.2) were designed to teach vocabulary to enable the child to talk about knowing and not knowing: *know; don't know; guess; and work out*. The interaction between the RSLT/ThA and the child provided the means of explaining each mental state as it was being experienced by the child.

Revised version. Metacognition in pragmatics therapy

Well, I put something in the box, so no peeking. Do you know what's in my box?

[prompts: 'No' using facial expression and shakes head]

Child: No

No, that's right, you don't know. So you hold on to that card [gives symbol for I

don't know]. You don't know. That says 'I don't know'.

(RSLT Case 1 session 1 LP 5.1.1)

Teaching the concept of guessing and experiencing its effect on success was integral to the activity LP 5.1.2.

Child: Is it cheese?

Are you guessing? ... Let's see how good it is to guess. ...

Child: Is it a piece of chicken?

Sorry it's not a piece of chicken. Have another go. ...

Child: Is it pretend sandwich?

[writes on list]. Sorry that's a good guess but that's not right.

Child: Aww, is it ...

(RSLT Case 1 session 1 LP 5.1.2)

Learning what to do when you don't understand, (e.g. request clarification) is the metacognitive control of person knowledge. In this extract the RSLT asked the child to use the strategies 'ask for a clue' and 'work out the answer'.

Revised version. Metacognition in pragmatics therapy

One of the other things you could do to find out is, you can ask for a clue [writes

'ask for a clue' on chart]. Shall I give you a clue?

Child: Yeah

In my box there is something that you can read.

Child: Is it newspaper?

No, what do we read in school?

Child: Books?

I think you worked it out. [points to chart and puts a tick by symbol for working out]

Child: Yes, a little book.

(RSLT Case 1 session 1 LP 5.1.2)

The RSLT named the strategy and explained the benefits of asking for help. Feelings related to knowing, not knowing, guessing and working out were made explicit.

(after three wrong guesses)...Is it a pencil?

Child: No!

Oh, I feel a bit sad now.

Child: Yeah [very quiet, looks at RSLT with concern]

I'm beginning to feel a bit sad now because my guesses are wrong

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(RSLT Case 1 session 1 LP 5.1.2)

These two activities were usually delivered in the first three sessions of SCIP therapy. In therapy sessions later in the SCIP intervention period and in activities from all three components of SCIP intervention children were prompted to use strategies taught in LP 5.1.1 and LP 5.1.2 to help them monitor and control their person knowledge.

What do you do when you find it difficult? What can you say?

Child: Please can you explain it?

Please can you explain it? Or I don't know what you mean. Or please can you help me? Yes.

(ThA Case 4 session 16 LP 4.2.3)

Do you know what this is called? Do you know what they are playing on?

Child: No

No? It's called a li-lo.

(ThA Case 3 session 14 SUSI 4.2.1)

The examples presented show that metacognitive person knowledge was explicitly taught and that strategies to monitor and control person knowledge were practised and applied when the child needed them.

Theme 2: Training in task knowledge

Metacognitive task knowledge assists in understanding task design and demands. Therapy tasks within the SCIP Manual had specified goals, materials, procedures and differentiation advice. In delivery, the design and demands of therapy tasks were explained to children in various ways as shown below.

a) Naming the task

Therapy tasks were usually referred to in general terms (jobs, work) and only sometimes given specific names: working on a *Friendship book* (Case 2), *Good listening* (Case 1), and *Conversations with problems* (Case 5). Tasks were frequently described using the vocabulary and concepts being taught, the materials needed, the demands of the task and a strategy that would help to achieve it.

So, I need to find the people first. ... so for this work, we have to think really hard. So you might want to close your eyes and picture it in your head.

(ThA Case 4 session 16 LP 4.2.3)

b) Task demands: understanding what makes a task easy or hard

Children and therapists talked about the level of difficulty of tasks:

A cup of tea. Well done. You picked out the clues straight away.

Child: it's easy

It's easy when you look at the clues and work it out.

(ThA Case 4 session 16 SUSI 4.2.1)

c) Task demands: explaining steps to complete tasks

Steps to do tasks were explained alongside a demonstration of what to do.

So I want to show you this one, so that you know what we are going to do, OK?

(RSLT Case 5 session 15 SUSI 3.1.1)

In this example, the steps used to describe the task are also the strategies needed to generate a definition and description of people and their occupations.

So, we've thought about all the different things to remember what a mechanic is and what an author is. Think about what it begins with, what group it's in, what they do, what they look like, where you might find them and also what they might use.

(ThA Case 4 session 16 LP 4.2.2)

d) Including rule breaks in tasks: error-detection and problem-solving

Tasks were designed to present children with a problem to solve or to demonstrate the impact of breaking the communication 'rule' being targeted. In this extract, a picture of children not listening in class is discussed then acted out. The child is monitoring the feelings

Revised version. Metacognition in pragmatics therapy

of the teacher in relation to the actions of the children in the picture and explains what would happen to children in his school who are rude in class.

How are the people feeling in this picture? ...

Child: Annoyed

The teacher is annoyed,...What's going to happen next? So the teacher has turned around. You do it. I'll turn around

Child: [pulls a face and gets caught by ThA, laughs]

What's going to happen next?

Child: She's going to go to the Head teacher.

(ThA Case 4 session 16 LP 4.2.4)

The data showed that therapy tasks were influenced by the strategies being taught and the therapy methods used in delivery. Examples of therapists and children talking about tasks included talk about the materials, goals, level of difficulty and explanation and practise of the strategies needed to complete the task.

Theme 3: Training in strategy knowledge

As with therapy tasks, strategies were sometimes given specific names, but more usually were referred to as 'rules' or things we have to do.

a) Strategy names

In general, the RSLT/ThAs did not explicitly tell the child names for strategies, but potential names for strategies were derived from coded transcripts (MCF code 3.1. SLT/CHILD names a strategy). The following example shows how the RSLT asked the child to use the strategy 'think about the work':

Do you think you can help Sheep to learn this one, [points to icon on chart] think about the work? [coded 3.1.1 SLT names the strategy]

(RSLT Case 1 session 1 PRAG 1.1.2)

b) Symbolic representations of strategies

Symbols and drawings were used to help explain what a strategy was, when it should be used and why it is important. Symbols for listening, looking and asking for help were drawn on a chart (Case 1 session 1 PRAG 1.1.1 and LP 5.1.1). This extract (session 15) shows the child engaging in drawing a symbol for monitoring and controlling his own feelings:

So I am going to show you a little bubble. It's a new thing, ready? [RSLT drawing]
*Here is the little person and their thinking bubble, and ... in their heads, they are giving themselves a message. So we have a speech bubble **inside** a thinking bubble.... Ok? One of the things we can do is, we can say to ourselves, 'never...*

Child: Never mind.....

Yeah, it's in a relaxed voice

(RSLT Case 5 SCIP session 15 SUSI 3.1.2)

c) Using strategies incorrectly: Sabotage

Errors in using strategies were observed in therapy tasks in three ways: the RSLT/ThA deliberately used the strategy incorrectly, pictures showing others using strategies incorrectly were discussed and the child's naturally occurring failed attempts at using a strategy were reviewed. Sabotage was used to engage the child in considering the effect of not using strategies on performance, feelings and interactions:

Do you know that sometimes we have conversations with problems? And we sort them out. I'm going to be him and you can be her. OK, are you ready?

Child: Pardon, excuse, hello

Can you just stop squashing me? [angry voice]

Child: Sorr – eee! [angry voice]

Was that a problem?

Child: [nods]

(RSLT Case 5 session 15 strategy from PRAG 1.5.3 used in LP 4.2.3)

Therapy tasks were designed to teach specific strategies for communication and social interaction. Strategies were used correctly and incorrectly by therapists and children and these errors used to reinforce the benefits of using strategies correctly. Identifying strategy names through analysis helped to pinpoint where strategies taught in one activity were being integrated into another, that is, where children were being supported to monitor and control their use of strategies across a range of SCIP therapy tasks.

Theme 4: Training metacognitive skills in monitoring self and others' use of strategies.

Metacognitive *monitoring* is the ability to reflect on elements of person, task and strategy knowledge. Metacognitive *control* is the ability to use the information gleaned from monitoring to improve one's use of strategies for maximal performance.

a) Monitoring and controlling of listening skills

The data showed that children were engaged in monitoring their use of listening strategies at all time-points in the therapy period and started to monitor others' use of strategies in SCIP session 1. Here the child is monitoring a puppet's ability to 'look at the speaker':

What was Sheep looking at?

Child: Looking at me.

Was he looking at the work?

Child: No

Was he looking at me, the teacher?

Child: No

(RSLT Case 1 session 1 PRAG 1.1.2)

b) Monitoring feelings: self and others

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Children were able to monitor their own feelings and describe what they could do to help themselves:

Shall we write that down in your book, under nervous?

Child: Yeah you get a bit of sadness in your tummy. If it goes up you feel nervous.

OK, so what do you do when you feel nervous? ...

Child: Close your eyes and keep calm and calm and calm then go downstairs and you won't feel nervous anymore.

(ThA Case 2 SCIP session 11 SUSI 2.5.2)

c) Monitoring social interactions: self and others

RSLT/ThAs used pictures and role-play to teach children how to monitor other people's feelings and their use of social conventions in interactions:

So we are going to look at their faces and see who is OK and who is not OK. This man is having a problem ...

And she is standing, how close do you think she is standing to him?

Child: Really close

Is it a bit too close?

Child: Yes, cos he's bending over

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He's trying to get out of her way.

(RSLT Case 5 session 15 LP 4.2.4)

Integrating details of an actual breakdown in the child's social interaction into therapy tasks provided a focus on self-monitoring:

Now we've got to draw a story that happened to you on Saturday... I'm going to draw one of these big pictures ...

Child: [interrupts RSLT] Frustrated.

Frustrated? Is that how you were feeling on Saturday? So here's you and you're a big brother just like in the story ... And here's Fred. Who is Fred?

Child: Freddie, my brother.

... here's a F for Fred and a J for Jamie, and how are those two boys feeling?

Child: Frustrated

(RSLT Case 1 session 8 activity SUSI 1.4.1)

d) Self-monitoring in real-time: using the child's mistakes to promote repair

Children were taught to notice when they had failed to use a strategy, the impact of this on the interaction and what strategy they could have used:

How did we start talking about wrestling?

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Child: By playing PS2 wrestling.

Because we were talking about noise, weren't we? ... And then, you started to tell me all about the game and how you were making the noise. I got a bit lost because I didn't know what you were talking about.

The ThA modelled and explained the strategy that will repair the problem.

So if you were going to tell me about the wrestling game on the PlayStation you need to say, 'The reason we were making lots of noise was this really noisy game'.

(ThA Case 2 session 11 using a strategy from PRAG 4.2.1 in SUSI 2.5.2)

SCIP therapy tasks were designed and adapted by the RSLT/ThA to teach children to monitor themselves and others and to control their use of strategies for communication or social interaction. Actual examples of breakdown were included in tasks to facilitate this.

Discussion

The primary aim of this study was to investigate the nature of metacognitive form and process in speech and language therapy for children who have SPCD, using a qualitative analysis of therapy sessions. Findings showed that metacognition was a key component of the therapy form and process and was employed to develop the children's ability to both learn language, pragmatic and social interaction skills and to monitor their use in themselves and other people. Outcomes included a) a Metacognitive Coding Framework (MCF) incorporating a coding scheme for metacognitive content; b) an inductive thematic analysis of key themes in the therapy interactions. Three themes overlapped with coding categories in the MCF but one additional theme was identified – the role of metacognitive

skills in the development of self-monitoring; and c) additional insights from the thematic analysis on the therapy process, particularly the way in which the therapist manages metacognitive content, language and prompts to support development towards independent learning.

Since the deductive analysis had been influenced initially by Flavell's model and Veenman et al's metacognitive framework, it is unsurprising that this analysis gave rise to the main categories of metacognitive person, task and strategy knowledge. However, it is important to note that both the extended analysis towards the final version of the MCF confirmed the main categories *and* the inductive analysis supported the presence of similar metacognitive content in SCIP therapy, as well as adding a new one not 'predicted' by deductive analysis. The final MCF contains a comprehensive account of the coded metacognitive content of the therapy sessions. However, it still requires greater scrutiny and refinement in further research to be of practical value.

Metacognitive *person* knowledge of self and others was a key theme identified in the inductive analysis. Children were engaged in talking about their own knowledge and understanding and what they could work out about other people's mental states. This was not entirely unexpected as the content of SCIP intervention promotes these conversations, but it was notable that this theme was strongly represented in the data and provides a recurrent opportunity for meta-talk about knowledge of self and 'what I know'.

Metacognitive *task* knowledge for SCIP activities was largely implicit in the interaction between practitioners and children. However, explanations of how to do tasks were integrated with modelling by the practitioners. SLTs promoted explicit understanding of how difficult or easy a task was. They also tested task knowledge and skills by including sabotage

in intervention. Metacognitive *strategy* knowledge was also largely implicit in the interactions during therapy, except in listening skills and comprehension monitoring therapy (SCIP components PRAG 1 and LP 5). Sometimes, strategies (e.g., 'working it out') were given names or symbolic representations by the therapist, presumably to increase availability of the strategy on other occasions.

In addition to these three themes, a further main theme of metacognitive skills in monitoring and control was also identified from the data. Therapy tasks were adjusted by the practitioner to focus on learning metacognitive skills of self- or other-monitoring. This is consistent with the intervention's overarching goal of therapy as progress towards independent use and monitoring of new skills. Methods of role-play and role-reversal used with or without error-detection and correction could be conceptualised as having a metacognitive function. When error-detection (sabotage) was included in tasks, children were actively engaged in problem solving, i.e., in the metacognitive *monitoring* of communication behaviour. In this therapy, it appears that changing the nature of the task materials and therapy method intensifies the metacognitive processing required from copying modelled behaviours to self-monitoring and self-control. This is a key finding, as it proposes an implicit but replicable sequence of methods that may constitute a mechanism to support therapeutic change.

In addition to the identification of four key themes, reflection on the results allowed a deeper understanding and abstraction of the meaning of metacognition within the therapy *process*. We propose that the therapy process as beginning with the variables in the task that could be manipulated by the SLT. Therapists then skilfully manage the overall presentation of the metacognitive therapy task for therapeutic gain. The SLT works

1
2
3 strategically with knowledge of the *therapy goals* for the client and the *task materials* that
4
5 provide the means of focusing on the target metacognitive *strategies*. Fine, continuous
6
7 adjustments are made to keep the task within the child's capacity for development of skills.
8
9 This is resonant of Vygotsky's zone of proximal development (Berk and Winsler 1995),
10
11 defined as what a learner can just achieve with prompting or support..
12
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15 Results from the current study support Law et al.'s claim that metacognition is present in
16
17 developmental language therapy sessions and provide evidence to explain how monitoring
18
19 and self-monitoring are built into therapy delivery. Detailed focus on the metacognitive
20
21 content of SCIP therapy activities revealed that, unlike Law et al., therapy tasks can be used
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23 to teach a specific communication skill *and* teach the skills to monitor and control its use. In
24
25 this study, we focused solely on one manualised intervention. However, it is probable that
26
27 similar metacognitive themes are present in other developmental language interventions . It
28
29 may be that self-monitoring is an aspect of intervention more commonly used in pragmatic
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31 therapy or in therapy for older children. This remains to be examined in future research.
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38 This analysis has highlighted the complexities of the therapy process in responding
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40 appropriately in order to keep the task within the child's capacity. The current climate
41
42 surrounding therapy delivery means that SLTs are doing less direct therapy and more
43
44 transfer of skills to assistant practitioners/assistants and parents. Knowledge about the
45
46 content is important and can be recorded in manuals. But knowledge about the tacit
47
48 process of therapy delivery is far harder to identify. Findings regarding the dynamic
49
50 adjustments between therapeutic methods of modelling, sabotage, role-play and role-
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52 reversal and how these impact on the goals of therapy have implications for training of
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practitioners and in how SLTs support teaching assistants and parents to deliver practice activities and achieve generalisation of new skills.

The principal limitation of this study is the potential for bias arising from extensive knowledge of the SCIP intervention manual content and delivery before this study commenced (Ritchie and Lewis 2003). The sample of videoed material selected reflected the therapy sessions as delivered but may not be entirely representative of metacognitive content. The use of a typology of participant characteristics mitigated against bias in sample selection to some extent (Ritchie and Lewis 2003) but there may be some differences or additions to the MCF with a broader sample. the selection of video data.

Qualitative research practice is increasingly called upon to demonstrate rigour through more explicit explanation of stages and processes of analysis (Koch and Harrington 1998). Every effort was taken in this study to make data analysis explicit and available for scrutiny. The analytical methods employed, however, required selection of a small but representative sample of SCIP data with inevitable limitations for generalisation (Silverman 2000). Practical constraints meant that the therapy assistants could not be involved in the analysis of therapy sessions. This may have added important insights into their construction of the therapy process as compared with those of the SLT. Future research might systematically compare the perspectives of skilled and novice therapists on how metacognitive content and process are controlled, tacitly or explicitly in intervention.

As well as documenting process, qualitative researchers need to develop reflexivity. Malterud (2001) argues that qualitative analysis, whether inductive or theoretically guided, requires the researcher to be duly reflexive; that is, remaining aware of the extent to which their pre-existing knowledge, theoretical explanations and experience of the data set

influences their interpretation. In future research, further exploration of the importance of reflexivity and its role in documenting preconceptions will be carried out. Reflexive accounts, completed by the agents of intervention themselves, may have an essential role in strengthening research on intervention.

Successful implementation of evidence-based interventions in speech and language therapy (SLT) requires an understanding of the content, active ingredients and therapeutic skill needed to replicate the effect in clinical practice (Kaderavek and Justice 2010). Current trends in evidence-based SLT practice emphasise the reporting of outcomes associated with interventions at the expense of the methods employed to achieve that effect. Knowledge about a treatment effect can aid the practitioner's choice of intervention, but translation of that effect to practice may hinge on guidance for implementation (McCurtin & Roddam 2012). That guidance may come in several forms, but we propose that one of the key components will be an understanding of the tacit knowledge of the practitioner and an explicit account of the dynamics of intervention.

Conclusions and implications

This qualitative study aimed to make explicit the tacit nature of clinical practice related to metacognition in a manualised SLT intervention. The therapy process model identified in this work may form a valuable addition to the understanding of the nature of delivery of skilled SLT. The Metacognitive Coding Framework has potential to be used in training of speech and language therapy practitioners, parents and education staff by making complex intervention content more explicit. The process by which skilled practitioners subtly manipulate variables such as task content and therapeutic method towards a specified goal has been exemplified. In doing this, we argue that we may be identifying the ingredients of

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a complex intervention. These ingredients could subsequently be used to populate a comprehensive list of putative mechanisms of change in the development of sound evidence (Kazdin 2007).

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For Peer Review Only

Table 1 Steps in purposive sampling of the SCIP trial video data corpus

Table 2: Clinical characteristics of the five children whose SCIP intervention data was used in this study

Case number	Age in years and months	CELF-4 CLS	SCQ	Clinical profile*
1	5;11	56	21	PDD-NOS Language Impairment
2	10;3	67	14	Non-ASD + Language Impairment
3	8;6	87	37	ASD + normal limits language
4	7;10	90	15	PDD-NOS + normal limits language
5	9;1	62	11	Non-ASD + Language Impairment

Key: CELF-4 Core Language Score (CLS) = Clinical Evaluation of Language Fundamentals Core Language Score (Semel, Wiig and Secord 2006); SCQ = Social Communication Questionnaire (Rutter, Bailey and Lord 2003).

Note: CELF-4 Standard scores have a population mean = 100.

*Indicative categories on the Social Communication Questionnaire (SCQ) (Rutter et al., 2003): SCQ score ≤ 14 = Non-autistic (Non-ASD); 15–22 = Pervasive Developmental Disorders Not Otherwise Specified (PDD-NOS); ≥ 22 = Autism Spectrum Disorder. Language impairment = CELF-4 (UK) Core Language Score ≤ 79

Table 3. SCIP intervention content, session number and therapy agent for the selected sample

Case no	SCIP session number	RSLT or ThA	SCIP Intervention content: Section and activity numbers				
1*	1	RSLT	PRAG 1.1.1	PRAG 1.1.2	LP 5.1.1 LP 5.1.2	SUSI 1.1.1	LP 2.1.2
1	8	RSLT	SUSI 1.4.1	LP 1.2.1a	LP 4.2.1	LP 4.1.1	
2	11	ThA	SUSI 2.5.1	SUSI 2.5.2	SUSI 5.1.1	PRAG 5.3.1	SUSI 4.2.1
2	18	RSLT	LP 3.1.2	LP 1.1.6	LP 4.2.3	LP 1.5.2	
3	14	ThA	SUSI 2.2.1	SUSI 2.5.2	SUSI 4.2.1	PRAG 5.3.1	
4	16	ThA	LP 4.2.3	LP 4.2.2	LP 4.2.4	PRAG 5.1.4	SUSI 4.2.1
5	15	RSLT	SUSI 3.1.1	SUSI 3.1.2	LP 4.2.4	PRAG 1.5.3	
5	4	RSLT	SUSI 1.3.1	SUSI 1.4.1	PRAG 1.4.4	LP 2.2.1	LP 2.3.1

*Critical case.

Key to manual section: PRAG 1 Conversation and metapragmatic skills; PRAG 5 Understanding and improving discourse style; LP 1 Vocabulary and word knowledge; LP 2 Improving narrative construction; LP 3 Non-literal language; LP 4 Discourse comprehension; LP 5 Enhanced comprehension monitoring; SUSI 1 Understanding social context cues in interaction; SUSI 2 Understanding emotion cues in interactions; SUSI 3 Understanding and practising flexibility; SUSI 4 Understanding thoughts and intentions of others; SUSI 5 Understanding friendships.

Table 4: Steps taken in the analysis of the critical case to develop the initial MCF

Steps in analysis
1. Extract key concepts from the literature on metacognition in childhood.
2. Transcribe therapist and child utterances and familiarise through repeated reading and viewing.
3. Assign codes to each utterance using terms extracted from the literature and compile these into a list.
4. Review the list of codes to ensure consistency and a metacognitive perspective on the content.
5. Search for patterns and relationships between codes and group codes into categories.
6. List the categories, sub-categories and codes in the initial metacognitive coding framework (MCF).
7. Verify the relevance of the categories in the MCF by coding the critical case and extract illustrative examples.

Table 5: Metacognitive Coding Framework

Categories, sub-categories and selected codes within the framework			
1. Talking about tasks	2. Talking about prior knowledge	3. Talking about strategies	4. Talking about monitoring
1.1 Naming the task	2.1 Find out what the child knows by asking	3.1 SLT or Child names the strategy	4.1 Self-monitoring <i>4.1.1 SLT asks child to monitor his own use of the strategy</i>
1.2 Talking about task materials	2.2 Child states what they know	3.2 SLT describes a strategy by what it is not	<i>4.1.3 SLT asks child to monitor their own comprehension</i>
1.3 Explaining how to do tasks	2.3 Feedback to the child on what he/she stated / know	3.3 SLT explains steps in strategies	<i>4.1.4 Child monitors his comprehension</i>
1.4 Repeat the task to practise the strategy	2.4 Explain the link between the task and prior knowledge	3.4 Visual representations of strategies	<i>4.1.5 Child monitors his own feelings</i>
1.5 Role-reversal		3.5 SLT asks the child to use the strategy	<i>4.1.6 SLT asks CHILD to monitor the link between feelings and events</i>
1.6 Talking about task demands		3.6 SLT and/or Child practise using a strategy correctly	4.2 Monitoring others
1.7 Explain vocabulary to complete the task		3.7 SLT and/or Child practise using a strategy incorrectly	<i>4.2.1 SLT asks CHILD to monitor someone else using a strategy</i>
		3.8 SLT gives feedback / extrinsic rewards for using strategies	<i>4.2.2 CHILD comments on someone else's comprehension</i>

		3.9 SLT links the strategy to the task	4.2.3 SLT asks child to monitor someone else's comprehension
		3.10 SLT explains why the strategy is important	4.2.4 SLT asks child to monitor someone else's feelings
		3.11 SLT asks child to use multiple strategies	4.3 SLT gives feedback on monitoring
		3.12 SLT links strategies to wider experience	

Table 6: Main themes of metacognition in the inductive analysis

Theme 1	Theme 2	Theme 3	Theme 4
Training in metacognitive person knowledge	Training in task knowledge	Training in strategy knowledge	Training metacognitive skills in monitoring self and others' use of strategies
<i>Subsidiary themes</i>	<i>Subsidiary themes</i>	<i>Subsidiary themes</i>	<i>Subsidiary themes</i>
Learning to talk about knowing	Naming the task	Strategy names	Monitoring and controlling of listening skills
Learning to talk about not knowing	Task demands: understanding what makes a task easy or hard	Symbolic representations of strategies	Monitoring feelings: self and others
Learning to talk about guessing	Task demands: explaining steps to complete tasks	Using strategies incorrectly: Sabotage	Monitoring social interactions: self and others
Learning to work it out/request clarification	Including rule breaks in tasks: error-detection and problem solving		Self-monitoring in real-time: using the child's mistakes to promote repair

Appendix

Example of therapy activity instructions from SCIP Manual

SCIP PHASE 2 PRAG 1.5.3

PRAG 1.5 DEVELOPING METAPRAGMATIC AWARENESS

Activity 3: Identify and repair errors in conversation

PURPOSE AND TARGET

To develop the child's awareness of the impact of problematic actions in conversation and how to repair situations

MATERIALS

Conversation rules and errors written or drawn on separate cards, e.g., look at the speaker, take turns to talk, ask questions, listen to the answer, not looking at the speaker, repetitive questions, unclear messages, talking at the same time, asking irrelevant questions.

Conversation topic cards from Schubi Combimage or other suitable pictures

Speech bubble sticky notes

Miniature people

PROCEDURE

Explain the task: "Today we're going to think about the ways in which people sometimes make mistakes in conversations. We are going to think of all the ways we can help them get it right."

Lay out all the rule cards and explain that to have a good conversation we need to remember all the rules. Select one topic and get the conversation going. Early in the conversation, break one rule and observe the child's response. Stop the conversation to talk about the way that this rule break interrupted the conversation. For example, deliberately

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avoid looking at the child and make this very obvious. Draw a picture of one person looking away and the other looking confused and thinking, 'is he talking to me or someone else?'

Draw a thought bubble to indicate what the other person is thinking when the error occurs.

Write some ways in which this affects the interaction and the other person's response

Discuss with the child what went wrong, why, what to do about the mistake and what he

can do next time to avoid making the same mistake. Teach vocabulary to describe what

went wrong and the solutions and repeat with another example of a different error. Write

all the conversations and the errors on speech bubbles and draw a picture to indicate the

thoughts and feelings of the other person. For example, when modelling an interruption

error, put one speech bubble on top of the other to show the impact

Discuss emotions and use facial expressions related to the impact of conversation errors

Focus on solutions and keep a record for the child in his workbook

Observe which skills the child needs additional support with and add to the Phase 2 Planner

Observe which skills the child shows some control and awareness of and add to the Phase 3

Planner

INPUT GUIDANCE

Observe the child's responses and differentiate in the following ways:

To make the activity harder: Role reversal sabotage: ask the child to deliberately make the conversation error