

*The 'Smart Intervention Strategy' for
school-aged children who stutter.*

*Dr. Joseph Agius
University of Malta*

*European Symposium on
Fluency Disorders
Antwerp 18-19 April, 2008*





Agenda

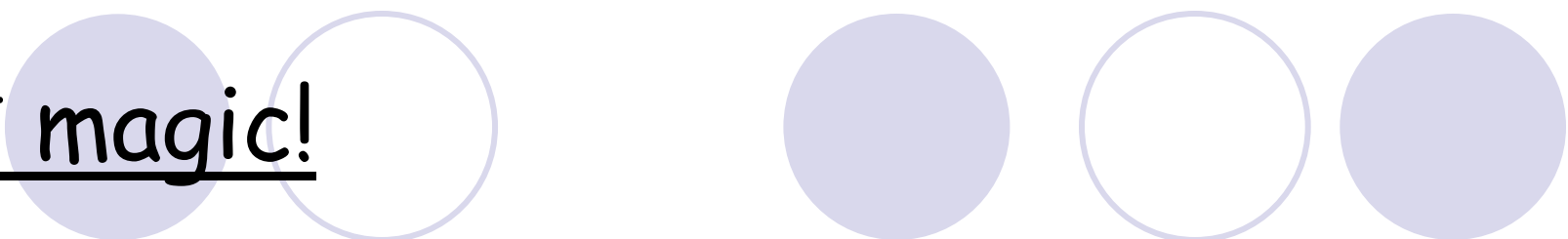
- 1. Introduction*
- 2. My Position in the World of Stuttering*
- 3. Relationship between attitudes, thinking and stuttering*
- 4. 'Think Smart, Feel Smart' Programme*
- 5. Research Questions*
- 6. Procedure*
- 7. Results and Discussion*
- 8. The 'Smart Intervention Strategy'*
- 9. Questions and Conclusion*



My position in the world of stuttering:


I have been practicing as a speech language pathologist since 1981. My highest ambition in my profession has always been to 'make a difference'. Shapiro (1999) notes that 'lightning does not strike twice' however 'magic in fluency intervention strikes at least three times'.

1st magic!




The first time magic struck, just as in David Shapiro's case, was when I stopped focusing on myself as a clinician and shifted my attention on my clients. This made sessions more rewarding and satisfying.

2nd magic!

A decorative graphic consisting of six circles arranged in a horizontal line. The first two circles are on the left, with the text '2nd magic!' overlaid on the first one. The second circle is empty. The third circle is solid light purple. The fourth circle is empty. The fifth circle is solid light purple. The sixth circle is empty.

Magic strikes the second time when clients start experiencing the freedom to use fluent speech. I remember clearly the spark in their eyes as they expressed themselves fluently.

3rd magic!

A decorative graphic at the top of the slide consists of a row of five circles. The first circle is solid light purple and partially overlaps the text '3rd magic!'. The second circle is hollow with a light purple outline. The third circle is solid light purple. The fourth circle is hollow with a light purple outline. The fifth circle is solid light purple.

The third time magic struck was when I received a letter of thanks from a sixteen-year-old client who stuttered. She had been given a copy of 'A Way through the Forest: One Boy's Story with a Happy Ending', by D. A. Shapiro (1995) and was inspired to reflect on her feelings.

She motivated me to continue my studies and specialize on fluency. Her letter was another breakthrough in my educational journey:



Un-Cemented Words

Thank you for listening while I was struggling through my un-cemented words.

Thank you for understanding me when bad things happened to my good sentences.

Thank you for giving me the opportunity to share my feelings rather than demanding that I follow a program that sucks.

Thank you for talking to me in words that I understood, rather than sounding professional and pompous... and speaking crap.

Thank you for not being angry when I did my best, but couldn't succeed.



Un- Cemented Words - (cont.)

Thank you for being so interested in my views and for reminding me of all the things that you thought I could do so well.

Thank you for not reminding me of what I already knew I could not do.

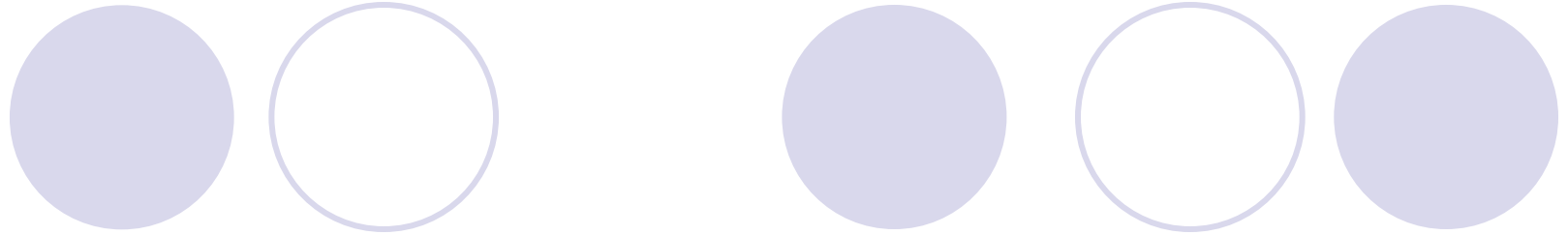
Thank you for knowing that I always did my best.

Thank you for helping my parents and teachers understand stuttering.

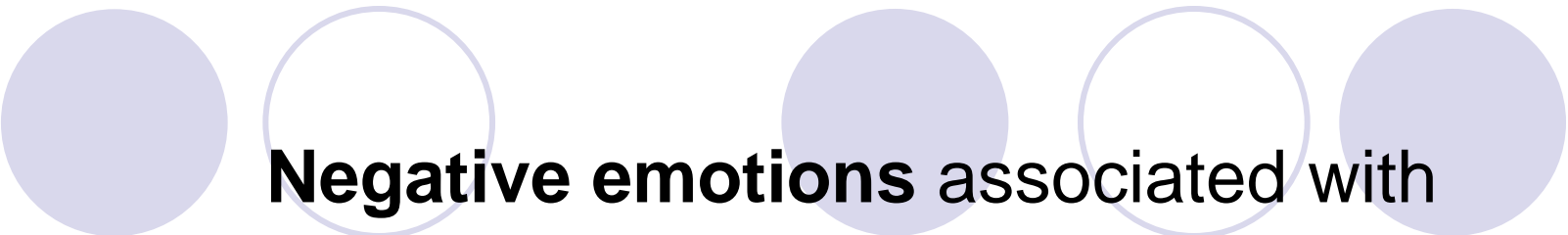
Thank you for helping my brother realize that teasing can be frustrating to me. Thank you for changing my life.

I am proud of who I am.

(From a client's letter following therapy)



WHAT is **SUCCESS** in
Stuttering Therapy?

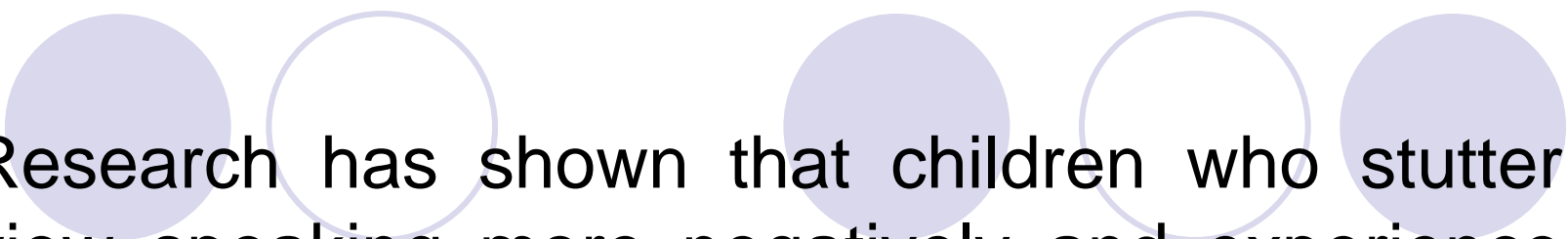


Negative emotions associated with stuttering increase the difficulty in physically managing speech.

(Murphy, 1999)

As the disorder develops, negative reactions can become a significant concern, at least for some children who stutter.

(Vanryckkeghem, Hylebos, Brutten, & Peleman, 2001).

- 
- Research has shown that children who stutter view speaking more negatively and experience more negative speech-related emotions than do non-stuttering peers (*De Nil & Brutten, 1991*).
 - Practical strategies for helping children who stutter change their feelings and beliefs are available but many speech pathologists appear uncomfortable targeting such goals (*Murphy, Scott Yaruss & Quesal, 2007; Cooper & Cooper, 1985, 1996*).

What is severity?

Behavioural side:

frequency,
types,
avoidance of stuttering

Emotional side:

feelings
(anxiety, shame, guilt,
frustration).
attitudes towards stuttering
(bad, terrible,
sign of weakness, failure).

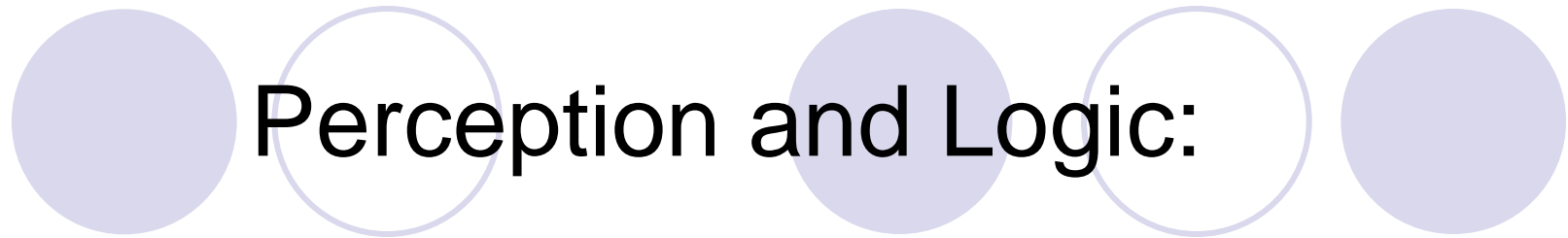


Feelings and Thinking!

You are locked in a room. You desperately want to get out. You want freedom. Your feelings are very strong. Which is the more useful, this very strong feeling or a key to the lock?

Feelings without the means to carry them out are not much good. At the same time, the key without the desire to leave the room is also not much good!

We need feelings and thinking. Feeling is no substitute for thinking. Thinking without feeling is aimless.



Perception and Logic:

'In our obsession with logic we have never taught perception' argues de Bono (2005).

Although in ordinary life the perception aspect is more important,

'much attention has been paid in the past to the logic of thinking' (de Bono, 1994).



'Think Smart, Feel Smart' Programme

- **10 group sessions**
- **Participation of 15 children aged 8 years- 12 years**
- **90 minutes duration**

3 Main Components:

- **Relaxation exercise** based on the work of Edmund Jacobson (Gregory, 1995) and guided language visualization exercise (Marshall-Warren, 2004).
- **Thinking Skill Tool** based on CoRT 1 (de Bono, 1986)
- **Desensitization exercise**

The Direct Attention Thinking Tools :

- are simple, practical, clear and focused and
- broaden perception so that in any thinking situation we can see beyond the obvious, immediate and egocentric.

Thinking Skills Tools based on CoRT 1

(de Bono, 1986)

1. **PMI** **Plus, Minus, Interesting**
2. **OPV** **Other People's Views**
3. **FIP** **First Important Priorities**
4. **APC** **Alternatives, Possibilities, Choices**
5. **AGO** **Aims, Goals, Objectives**
6. **CAF** **Consider All Factors**
7. **C&S** **Consequence & Sequel**
8. **Rules**
9. **Decisions**
10. **Planning**



Desensitization Exercises:

- **Telephone-a-mate activity**
- **Presentation on favourite topic**
- **Reading in front of group.**

Aim of Study:

- To explore shifts in the attitudes, feelings and frequency of dysfluency in school age children who stutter following a ten week thinking skills programme.



Research Questions:

- 1. Are there variations in the CAT (Communication Attitude Test) (*Brutten, 2004a*) scores of stuttering children following a thinking skills programme and stuttering children not following the programme?**
- 2. Are there variations in the SSC-ER (Speech Situation Checklist- Emotional Reaction) (*Brutten, 2004b*) scores of stuttering children following a thinking skills programme and stuttering children not following the programme?**



Research Questions- (cont.)

- 3. Are there changes in the frequency of dysfluency in a reading task in stuttering children following a thinking skills programme and stuttering children not following the programme?**
- 4. Are there changes in the personal constructs of stuttering children following a thinking skills programme as compared to stuttering children not following the programme?**
- 5. Do parents notice changes in attitudes of children following a thinking skills programme?**

Participants:

- **30** school age children who stutter
- Ages between **8 years** and **12 years**
- **15 children** in **experimental group** and **15 children** in delayed programme **control group**.
Random selection.
- **'2 young consultants'** observers.

Criteria:

- Receptive and expressive abilities no more than 1 year below chronological age level.
- Diagnosed as child who stutters at least 12 months prior to participation in study.

Data collection:

- Scores on the **Communication Attitude Scale (CAT)**
- Scores on the **Speech Situation Checklist-Emotional Reaction (SSC-ER)**
- **Dysfluency measures** on a reading task
- **Self-characterisation sketches**
- **Post programme parent questionnaire**
- **Reflexive diary – participants/ researcher**



Communication Attitude Test (Brutten, 2004a)
(35 items)

SAMPLE:

1. I don't mind asking the teacher a question in class
True **False**
2. I find it easy to talk to almost everyone
True **False**
3. Telling someone my name is hard for me
True False

Speech Situation Checklist- Emotional Reaction (Brutten, 2004b) – (56 items)

SAMPLE:

How do you FEEL when you:

1. Talk with a new kid in school

Not afraid	A little afraid	More than a little afraid	Much afraid	Very much afraid
---------------	--------------------	------------------------------	----------------	---------------------

2 talk during dinner

Not afraid	A little afraid	More than a little afraid	Much afraid	Very much afraid
---------------	--------------------	------------------------------	----------------	---------------------



Self-Character Sketch (Kelly 1991; 1955)

Tell me what sort of boy or girl is. Tell me about yourself as if you were being described by an imaginary friend who knows you and likes you and above all understands you very well. This person would be able to say what your character is and everything about you. Perhaps you could begin with: (your name) is and say something important about yourself. Try and fill the page.

**Modification reprinted from Jackson, S. & Bannister, D. (1985)
Growing into Self. In Bannister D. (Ed) , *Issues and Approaches in
Personal Construct Theory*, Academic Press, with permission from
Elsevier.**

Data analysis:



Quantitative analysis of:

- Within pre-post and between pre- and post scores on **CAT**
- Within pre-post and between pre- and post scores on **SSC-ER**
- dysfluency frequency in **reading task**
- number of words in **self-character sketch**

Qualitative analysis of:

- **CAT** items
- **SSC-ER** items
- **self-characterisation sketches**
- **Parent feedback**
- **reflexive diary** – participants/ researcher.

Data Analysis:

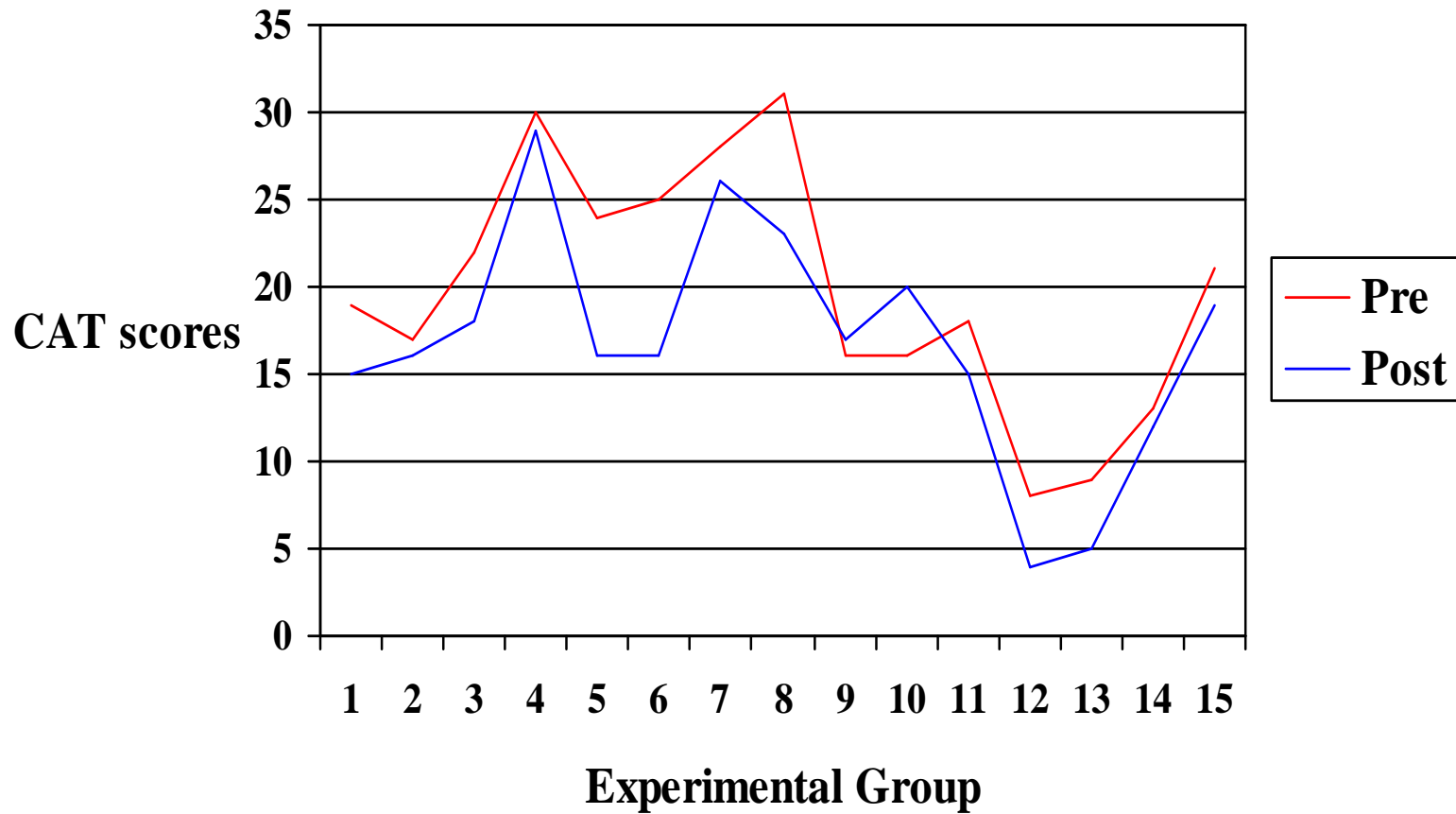
- **Two-way analysis of variance (ANOVA)**
 - **T-tests**



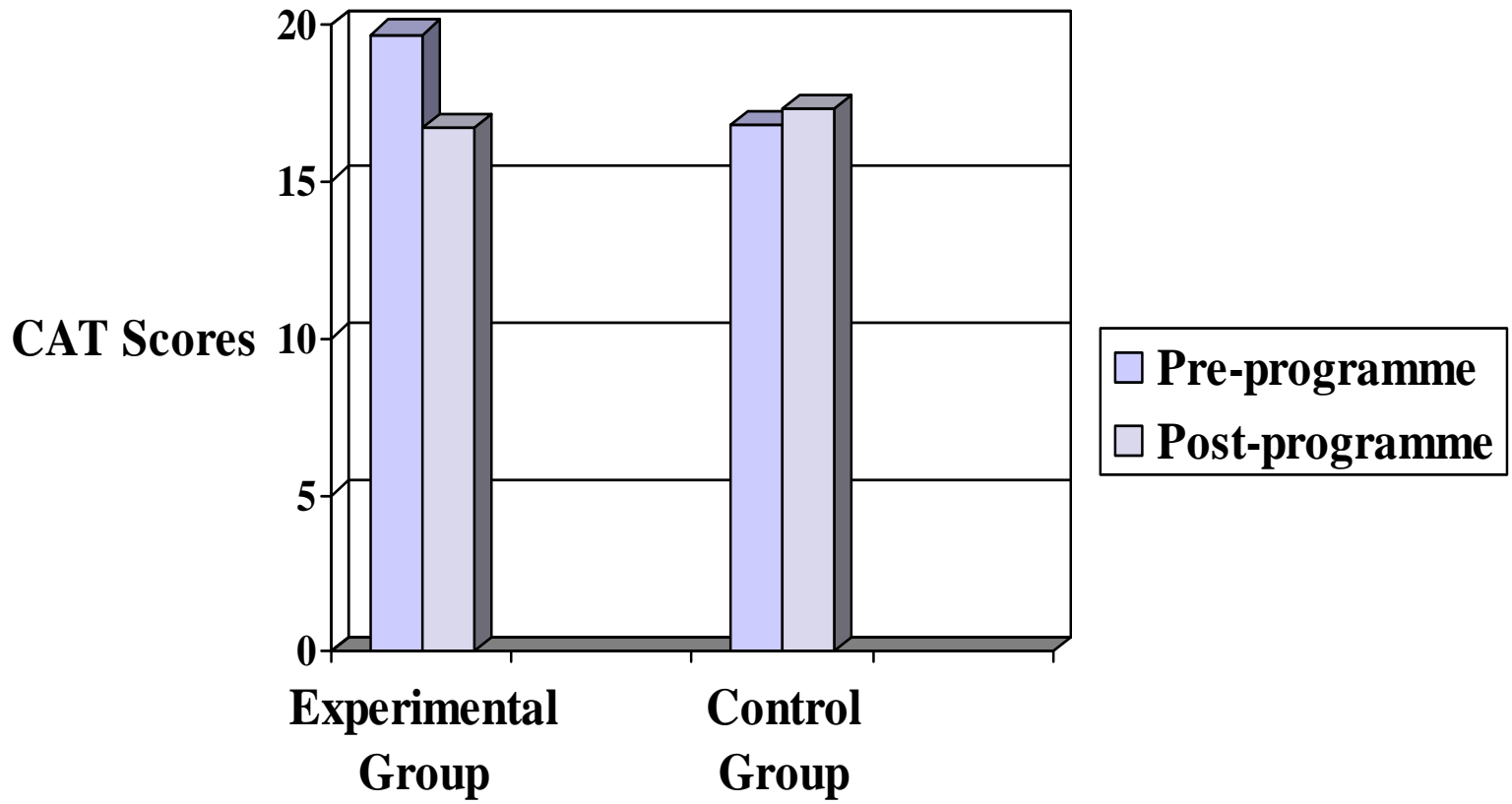
Communication Attitude Test (CAT)

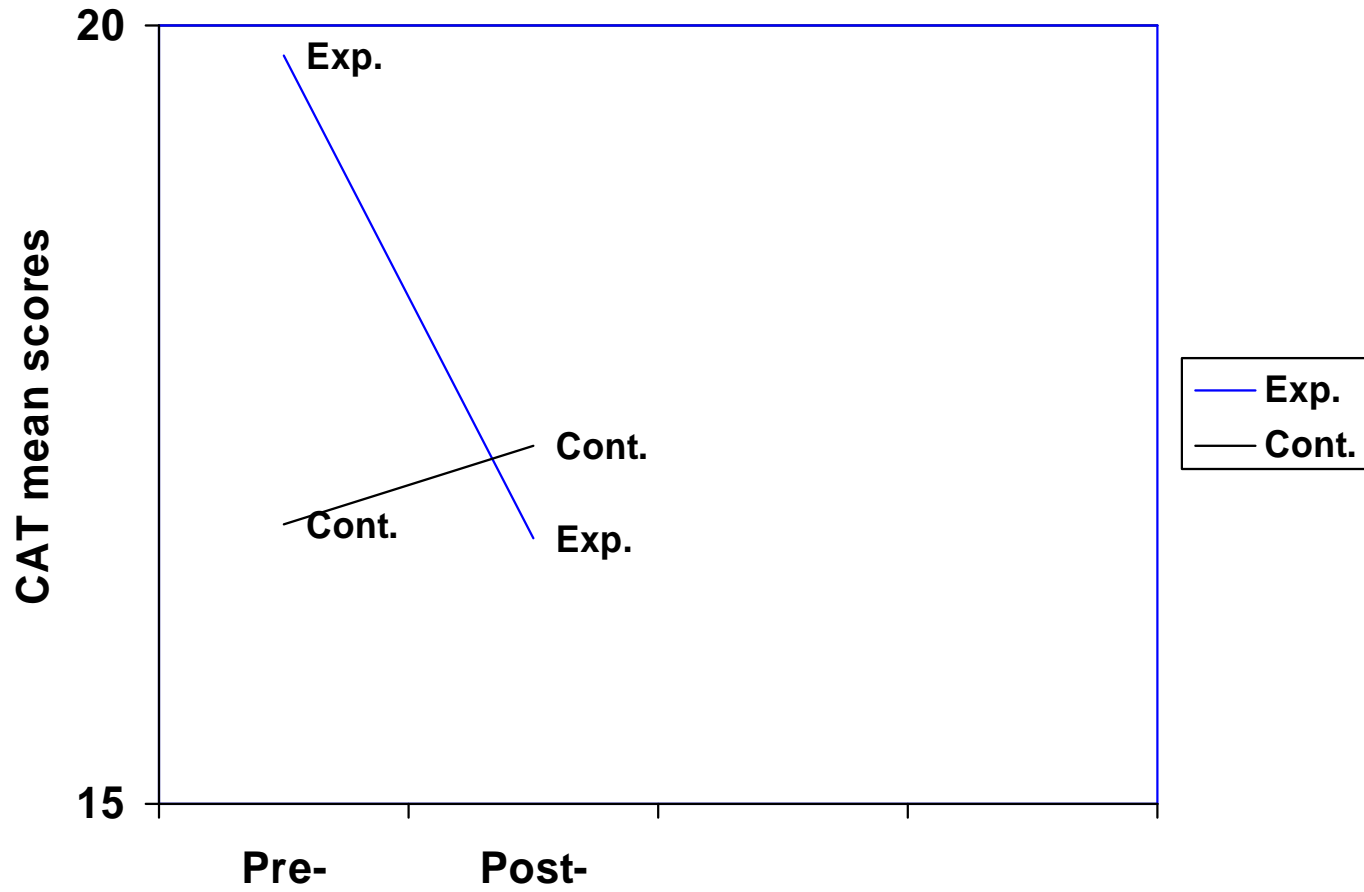
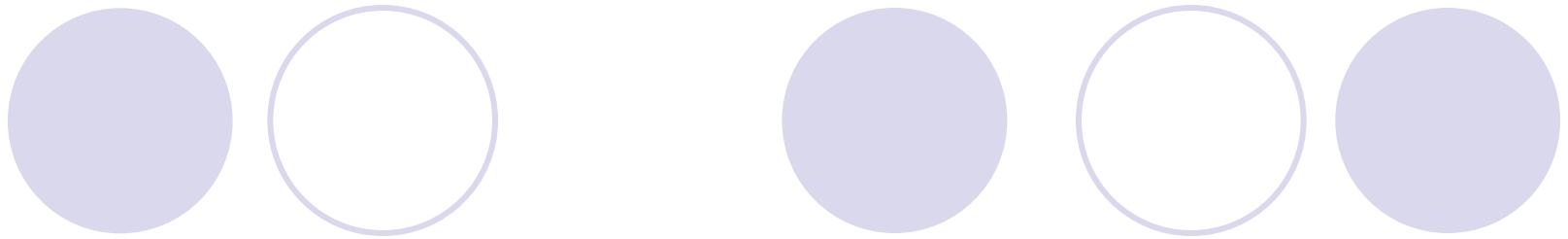
A more positive attitude to communication with a significantly lower score ($p < 0.05$) on the Communication Attitude Test (CAT) was recorded by the children who stutter in the experimental group.

**CAT scores for Experimental Group
pre-programme and post-programme**



**Mean CAT scores of experimental group
and control group-pre- and post-programme**



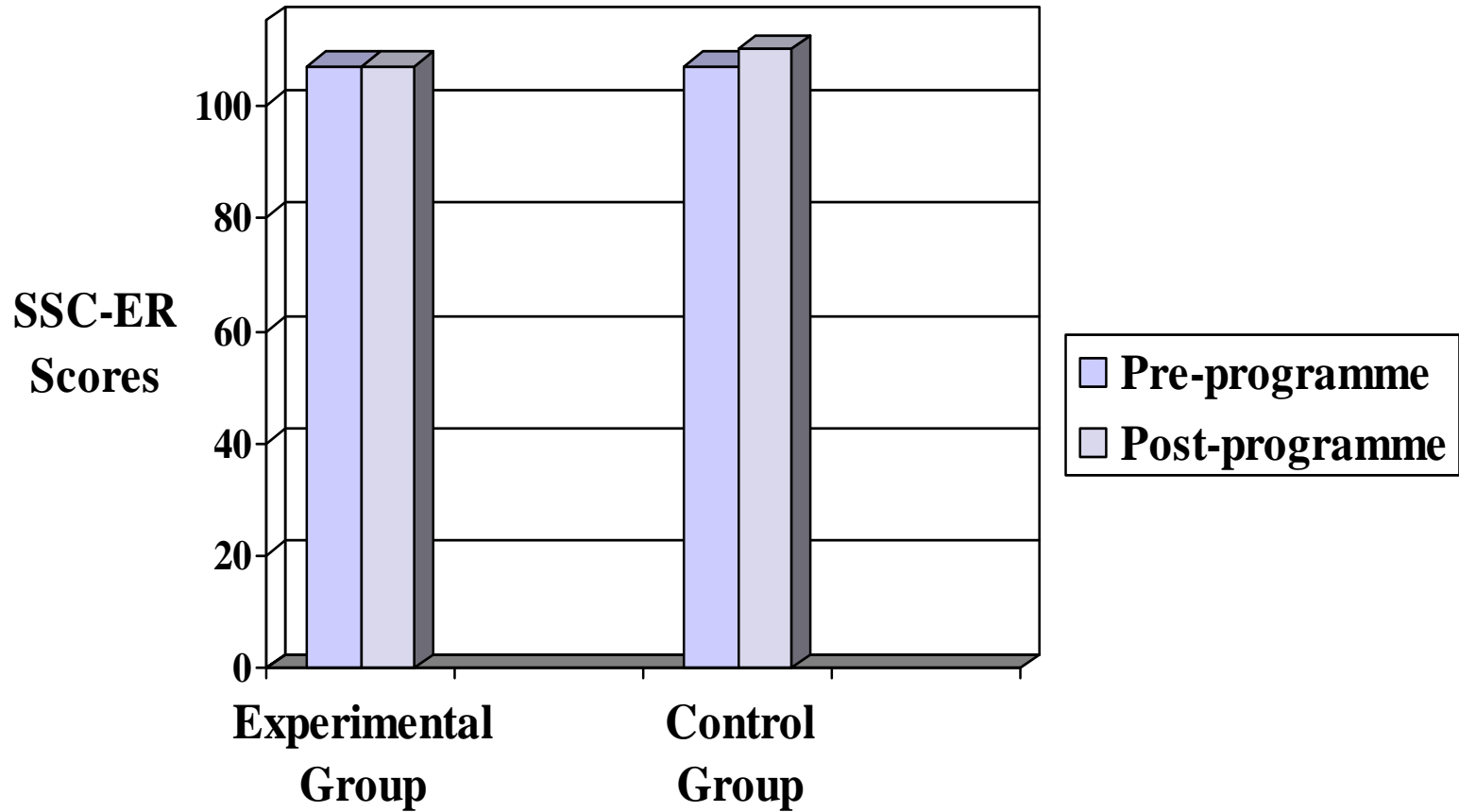




Speech Situation Checklist (SSC-ER)

No significant interaction effect ($p > 0.05$) was recorded in the Speech Situation Checklist-Emotional reaction (SSC-ER) pre- and post-programme of the children in the experimental group and the control group.

**Mean SSC-ER scores of experimental group
and control group-pre- and post-programme**

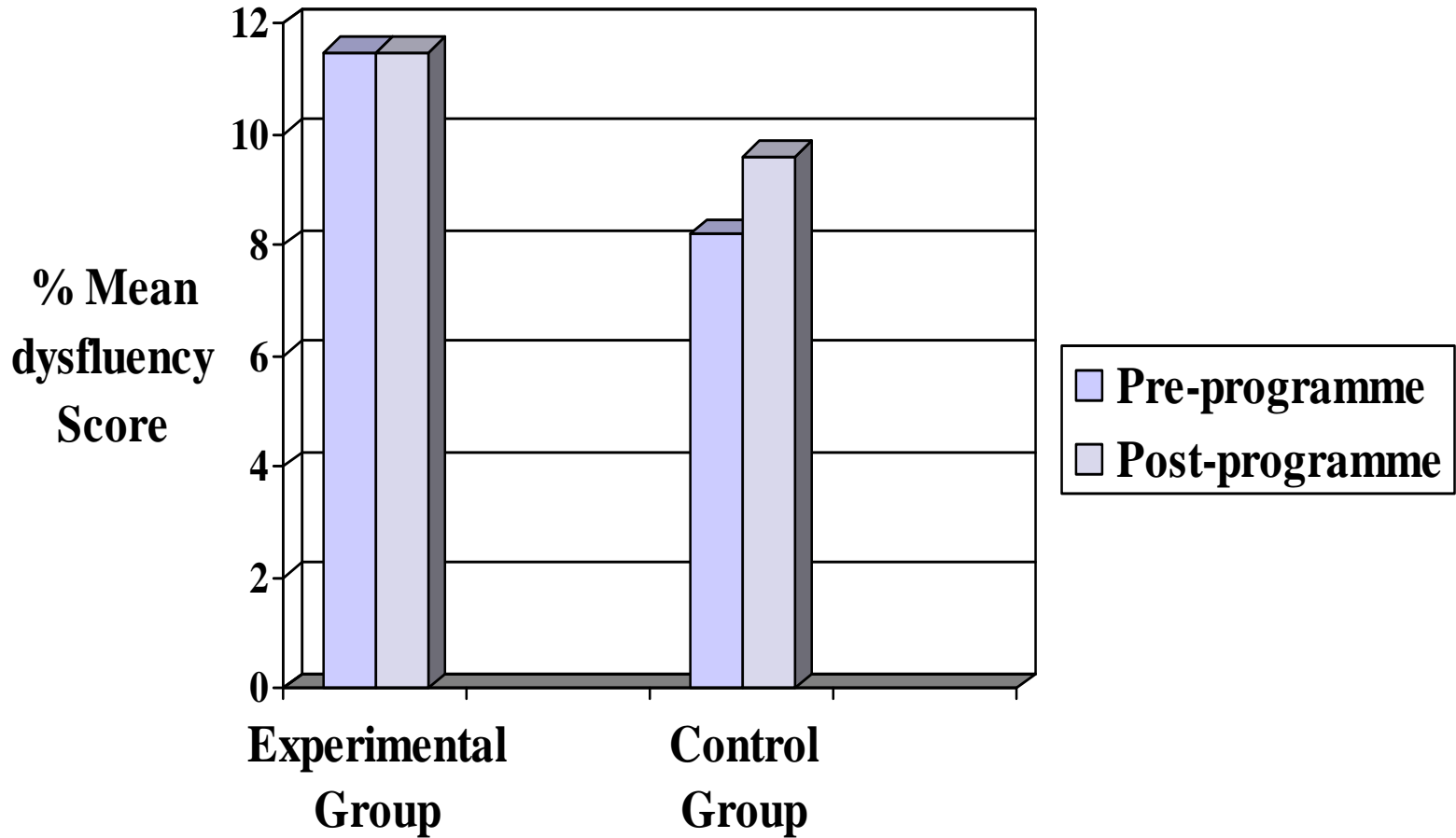




Frequency of dysfluency (reading task)

No significant interaction effect ($p > 0.05$) was recorded in the frequency of dysfluency (*reading task*) pre- and post-programme of the children in the experimental group and the control group.

Mean frequency of dysfluency (reading) scores of experimental group and control group-pre- and post-programme

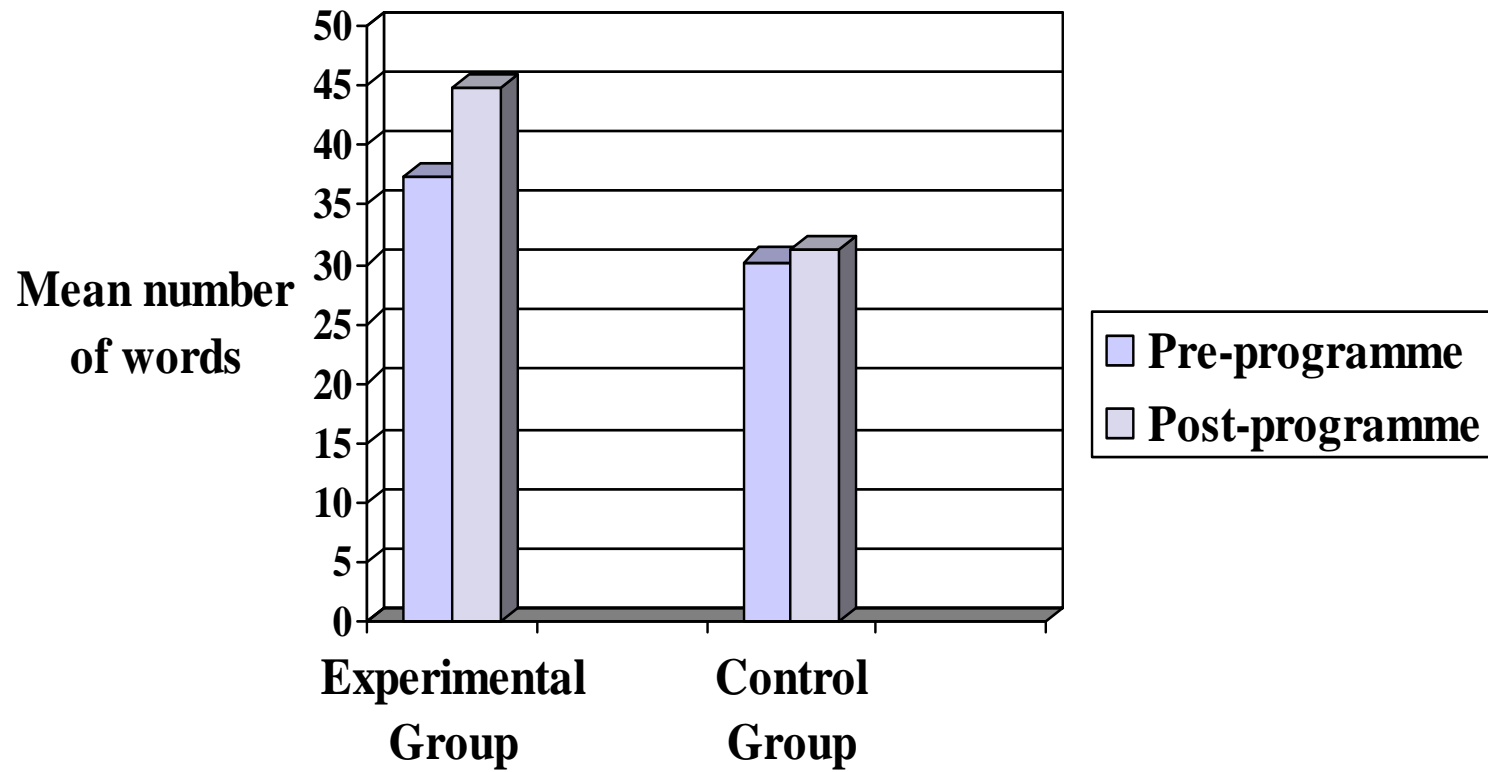




Number of words in self-character sketches

No significant interaction effect ($p > 0.05$) was recorded in the number of words in self-character sketches, pre- and post-programme, of the children in the experimental group and the control group.

Mean number of words in self-character sketch of experimental group and control group-pre- and post-programme





Other findings:

Elaboration, with increased self-construing statements, was noted in the post-programme self-character sketches of the majority of children who stutter following the thinking skills programme.

Table 1. Analysis Self-Characterization of Experimental Group (EG) participant A1: pre-program and post-program.

Experimental Group (EG)	
Pre-program	Post-Program
<p>A1 Views of others score: 2 Personal history and future score: - Psychological cause and effect score: 2 Psychological statements score: 1 Contradictions score: - Insight score: - <i>Specific comments:</i> <i>Views of others: 'very nice', 'very funny'.</i> <i>Psychological cause and effect: 'I like her cause we are friends and sometimes we play', 'I love Y because she is my best friend'</i> <i>Psychological statement: 'sometimes she comes to our house'.</i></p>	<p>A1 Views of others score: 1.5 Personal history and future score: - Psychological cause and effect score: .5 Psychological statements score: 5.5 Contradictions score: - Insight score: 1 <i>Specific comments:</i> <i>Views of others: 'her mother loves her a lot'</i> <i>Psychological cause and effect: 'when I go to her house her mother brings us some appetizers to eat'</i> <i>Psychological statements: 'very good at school', 'knows how to sing, read and dance and other things', 'thing she likes most is drama', 'likes me a lot', 'likes to play hide and seek and catch'</i> <i>Insight: 'What I have said today about Y is very interesting'.</i></p>

A decorative graphic consisting of two groups of three circles. The first group on the left has a solid light purple circle on the left, a white circle with a light purple outline in the middle, and a solid light purple circle on the right. The second group on the right has a solid light purple circle on the left, a white circle with a light purple outline in the middle, and a solid light purple circle on the right.

Other findings:

Feedback, from all contributing to this study, considered parental involvement to be an essential component in stuttering intervention.

The title is centered at the top of the slide. It is flanked by five light purple circles of varying sizes and opacities. The circles are arranged in a slightly overlapping, horizontal line. The text is in a bold, black, sans-serif font. The phrase 'young consultants' is underlined.

Interesting comments from the 'young consultants' :

- *'parents should also have sessions like these so that they do not have to worry about us'.*
- *'I noted that when something new is introduced, such as when we watched the video, the children behaved perfectly'.*
- *'I just felt that one of the kids just did not want to be there'.*

Researcher's Reflexive Diary- included in the form of 'research blogs':

a) What Parents Want

Some parents of children who are participating in the programme were informally discussing their child's progress. They noted their children's enthusiasm to attend sessions. They also noted that the child is feeling more serene and confident. However, they wondered whether I was going to work directly on decreasing the frequency of stuttering in their children's speech. It seems that parents' perception of success is 'decrease in dysfluency' rather than 'increase in confidence'.



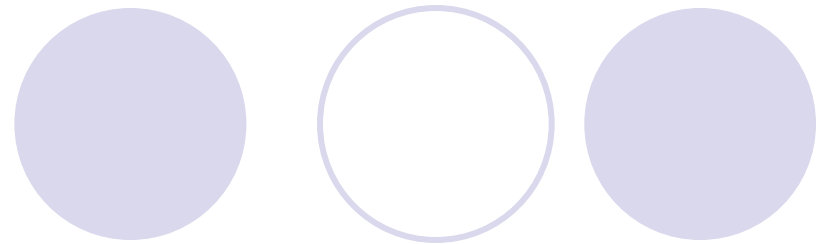
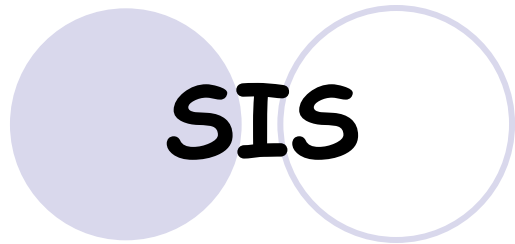
Participant Reflexive Diary:

School was observed to bring positive feelings with comments like:

'understood what I studied' (A6),

'came first in my English test' (A3) and

'did not have too much homework' (A3).



THE SMART INTERVENTION STRATEGY
(SIS)
FOR SCHOOL-AGE CHILDREN
WHO STUTTER

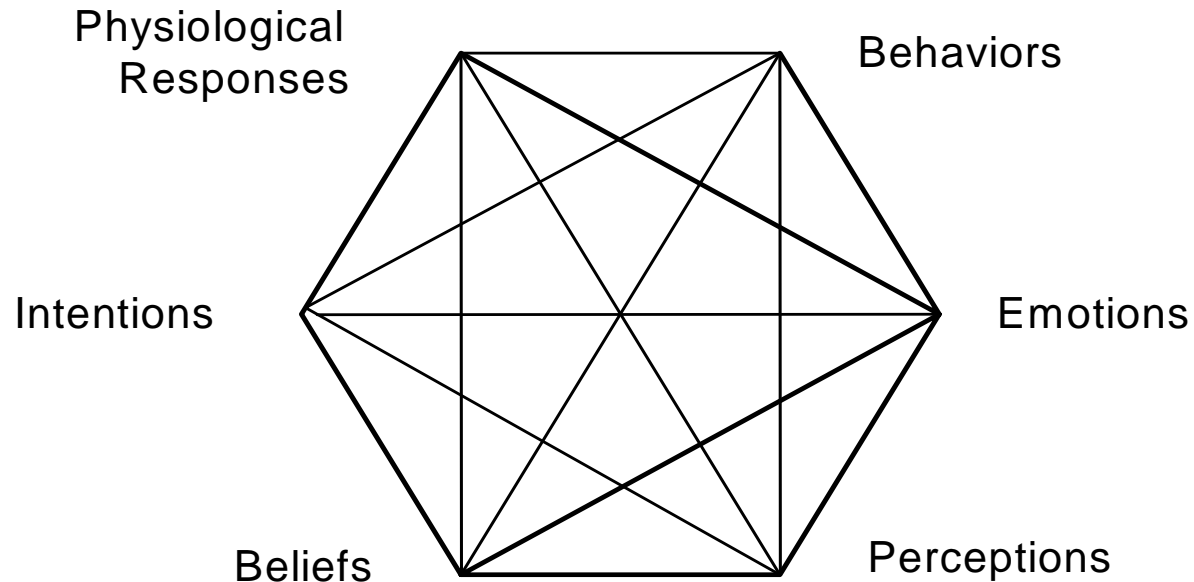
Rationale for the Smart Intervention Strategy (SIS)

The Smart Intervention Strategy (SIS) for school-age children who stutter is based on the following rationale:

- *Stuttering is a complex and multidimensional condition. This study supports Harrison's 'stuttering hexagon model' whereby intervention needs to focus on all the interactive components: physiological responses, behaviours, perceptions, beliefs and intentions.*

The Stuttering Hexagon. Note, From 'How to Conquer Your Fears of Speaking Before People' (p. 58) by J. Harrison, 2004. Reprinted with permission from the author.

The Stuttering Hexagon



Rationale for the Smart Intervention Strategy (SIS) (cont.)

- *Parents are directly involved in the programme. This study supports Rustin's (1987) and Baggart, Cook and Fry's (2006) view that close cooperation with parents is considered important and essential.*
- *Children need to be motivated. Activities need to be fun. Children are prepared and motivated to attend sessions by using sports or other interesting and fun themes.*

Rationale for the Smart Intervention Strategy (SIS) (cont.)

- *Thinking tools are a component of this strategy. This study indicated that CoRT Thinking tools can help children improve attitude towards communication. Tools are addressed to both parents and children.*
- *Shaping fluency or modifying stuttering needs to be addressed together with skills in public speaking.*

Rationale for the Smart Intervention Strategy (SIS) (cont.)

- *Desensitization exercises aimed directly at feelings. This study showed that exercises need to focus directly on the specific feared situations of each individual.*
- *Speaking skills need to be generalized in the home, school and community situation. The skills need to be supported by the parents at home and teachers at school.*



Description for the Smart Intervention Strategy (SIS)

The Smart Intervention Strategy (SIS) for school-age children who stutter consists of the following components:

- *Parents and child :*

Both parents and children are involved in the intervention process. The children are first prepared and motivated to participate in the programme.

Description for the Smart Intervention Strategy (SIS) (cont.)

- Think Smart, Feel Smart :

The CoRT (de Bono, 1986) thinking tools are offered to both parents and children. The activities and exercises could also be related to stuttering and specific speaking situations



using CAF in stuttering intervention:

...the children are stuttering experts!

Read letters asking for their advice:

Dear Dr. Karl,

My name is Christian and I wish it wasn't... my question is, Do you think I should change my name/

Dear Dr. Alessandro,

I am having trouble in school. Children are teasing me ...what should I do?

Dear Dr. Maria,

I like speaking to my grandparents but I have trouble speaking on the phone... Do you have any suggestions for me?

(Reitzes, 2006)

Description for the Smart Intervention Strategy (SIS) (cont.)

- Cool Speech :

Shaping fluency or modifying stuttering techniques are offered to the children in order to feel free to communicate. Public speaking skills are also offered to the children who stutter.

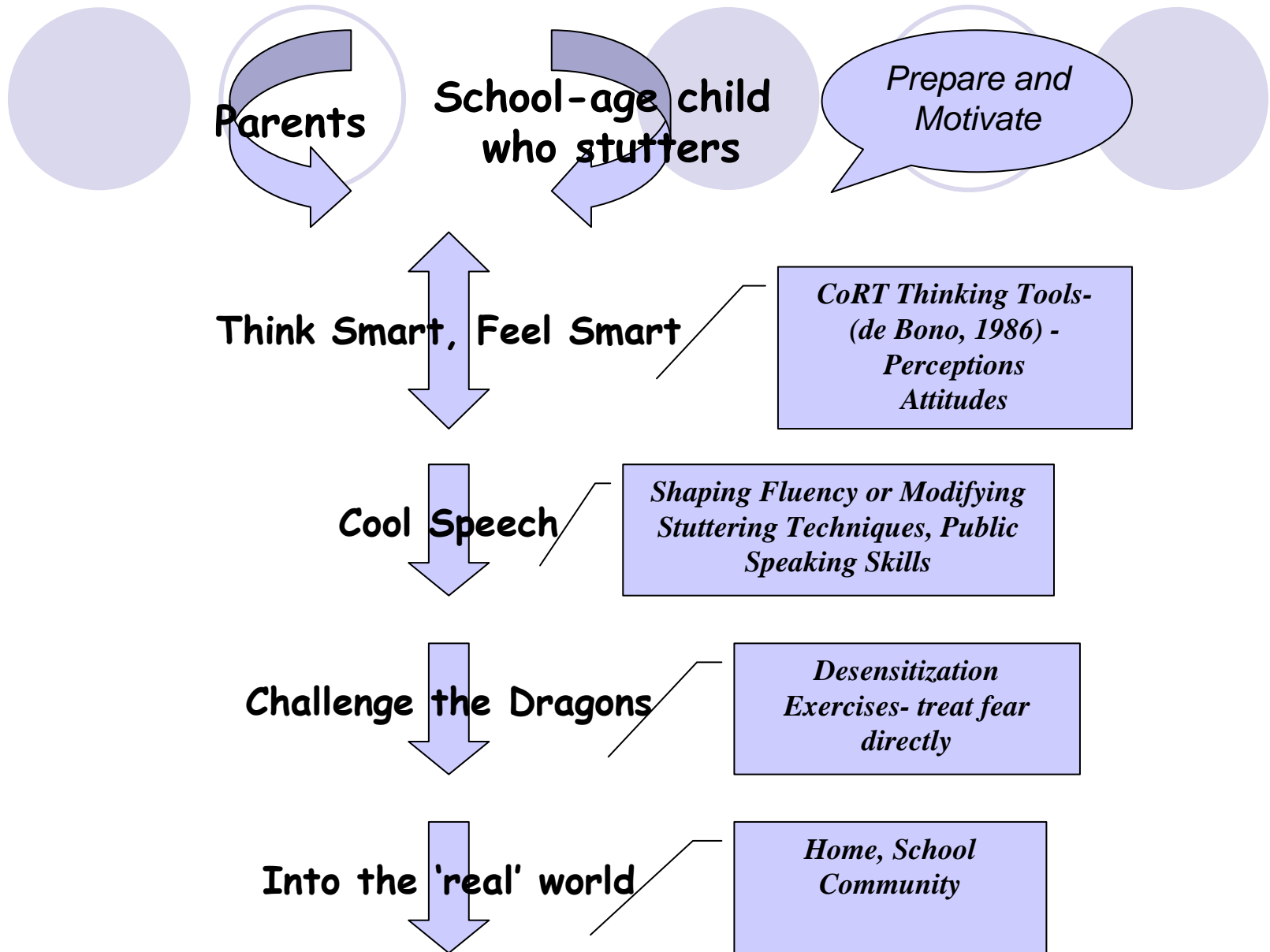
- Challenge the Dragons :

Desensitization exercises focus directly on the specific speaking situation fears of the children.

Description for the Smart Intervention Strategy (SIS) (cont.)

- Into the 'real' world :

The children are encouraged to use thinking tools and fluency techniques in specific situations at home, school and community. Parents at home and teachers at school are pillars of support for successful experiences.





Acknowledgements

I would like to thank my supervisors *Professor Jerry Wellington* and *Professor Shelagh Brumfitt* for their expert guidance and their constant encouragement and advice. This research was in partial fulfillment for the degree of Doctor of Education - University of Sheffield.

References:

- Brutten, G.J. (2004a) *Communication Attitude Test*. Behavior Assessment Battery (BAB) Associates, Orlando: University of Central Florida.
- Brutten, G.J. (2004b) *Speech Situation Checklist- Emotional Reaction for Children*. Behavior Assessment Battery (BAB) Associates, Orlando: University of Central Florida.
- Canfield, J. (2005) *The Success Principles: How to Get from Where You Are to Where You Want to Be*. HarperCollins Publishers Inc.
- Cooper, E.B., & Cooper, C.S. (1985). Clinician attitudes toward stuttering: a decade of change (1973-1983). *Journal of Fluency Disorders*, 10, 19-33.
- de Bono, E. (1986) *The CoRT Thinking Program*. Advanced Practical Thinking Training, Inc., USA.
- de Bono, E. (1994) The Teaching of Thinking. In: S. Dingli (ed) *Creative Thinking: A multifaceted Approach*. Malta University Press.
- de Bono, E. (2005) Making Globalization Work. Presentation during *The Commonwealth Business Forum*. 23 November 2005, Hilton, Malta.
- De Nil, L.F. and Brutten, G.J. (1991) Speech-associated attitudes of stuttering and nonstuttering children. *Journal of Speech and Hearing Research*, 34, 60-66.
- Gregory, H. (1995) *Stuttering therapy: A workshop for specialists*. Unpublished manuscript, Northwestern University and the Stuttering Foundation of America, Evanston, Ill.

References:



Jackson, S. and Bannister, D. (1985) Growing into Self. *In: Bannister (ed) Issues and Approaches in Personal Construct Theory*. Academic Press.

Kelly, G.A. (1991) *The psychology of personal constructs (2 vols.)*. [First published in 1955]. London: Routledge.

Marshall-Warren, D. (2004) *A Practical Manual of Whole-Being Hypnotherapy*. Deborah Marshall- Warren, 14/15 Biccieni Alley, Zabbar ZBR03, Malta.

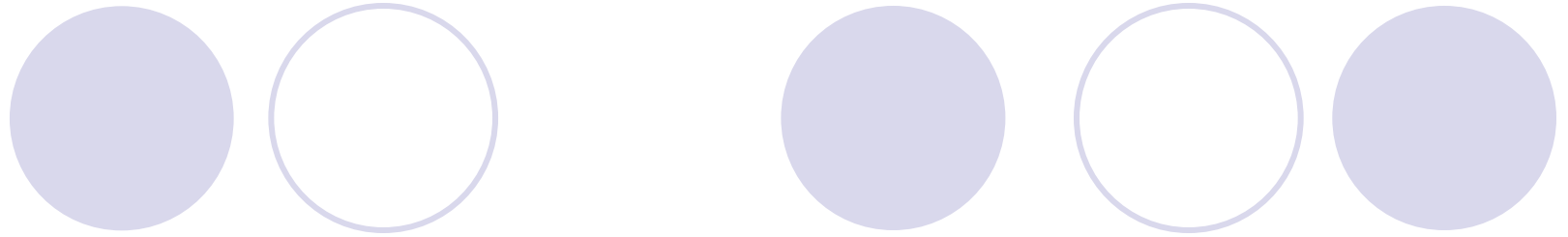
Murphy, W. P., (1999). A preliminary look at shame, guilt, and stuttering. In N. Bernstein-Ratner and C. Healy (Eds.) *Stuttering Research and Practice: Bridging the Gap*. (pp. 131-143). Mahwah, NJ: Lawrence Erlbaum Associates.

Murphy, W. P., Yaruss, J. S., & Quesal, R. W. (2007). Enhancing treatment for school-age children who stutter I. Reducing negative reactions through desensitization and cognitive restructuring. *Journal of Fluency Disorders*, 32, 2, 121-138.

Reitzes, P. (2006). *50 Great Activities for Children who Stutter*. Pro-ed.

Shapiro, D.A. (1999) *Stuttering Intervention – A Collaborative Journey to Fluency Freedom*. PRO-ED, Inc., Texas, USA.

Vanryckeghem, M., Hylebos, C., Brutten, G.J., & Peleman, M. (2001) The relationship between communication attitude and emotion of children who stutter. *Journal of Fluency Disorders*, 26, 1-15.



Thank You for listening!

Joseph

joseph.g.agius@um.edu.mt