# Learning Disabilities – A.A. 2015-2016 INTERVENTION OF ADHD

# SCHOOL INTERVENTION FORADHD

- **Context and Antecedent manipulation** 
  - + Emphasize rules
  - + Make more explicit the instructions
  - + Adapt the work load
  - + Give the possibility of choosing
  - + Favour peer tutoring and cooperative learning

# SCHOOL INTERVENTION FORADHD (CONT.)

### **Manipulation of consequences**

- + Token
- + Verbal reinforcements
- + Response cost
- + Time Out
- + Self-management

## PARENT INVOLVEMENT: INTERACTION SCHOOL-FAMILY

Barkley & Murphy (2006)

# **EXAMPLE OF DAY REPORT**

#### Lesson hours

Comportamento:	1	2	3	4	5	6	7
Partecipazione in classe							
Performance della classe							
Seguire le regole della classe							
Andar d'accordo con altri							
Qualità di compiti a casa							
Iniziali dell'insegnante							
Commenti di rimando							

 Parent training focused on educational strategies

 Parent groups focused on parents psychological aspects

# INTERVENTION ON ACADEMIC SKILLS: AN EXAMPLE ON WRITING

problems of ADHD children in writing skills could depend on their difficulties in planning, producing ideas, organization

A research that tried to help children in the planningand- organization phase of writing in order to verify an eventual improvement of writing skills Can ADHD children benefit from a support on the executive aspects of writing (planning and organization)?

# **STUDY A: A GUIDE IS NOT SUFFICIENT**

**Objective** 

Supporting ADHD children in the planning phase of writing with a guide-scheme in order to improve their performance in a writing task

#### **Participants**

2 groups (ADHD and Controls) of primary school (23 males and 10 females), matched for age, IQ, sex, social and cultural background, no children with ODD and CD or with reading or mathematical impairments

Tasks and procedure

Children had to write two letters to two French twins

Two conditions: with facilitation (with the guide-scheme) without facilitation (without guide-scheme)

Conditions (with facilitation vs. without facilitation) and title of the letter were counterbalanced across participants

# MAIN RESULTS

- Differently from what could be predicted on the basis of the traditional teaching procedure, a guide-scheme did not represent a facilitation for children
- The pattern of results was very similar for both groups of children, even if ADHD children had a general worse performance than controls
- Probably children had not ever used a similar facilitation, then they spent all their cognitive resources in understanding or following the guide-scheme, rather than in building a better essay

# STUDY B

#### **Objective**

Supporting ADHD children in the planning and organization phase of writing with a **guide-scheme** improves their performance in a writing task, if preceded by a training

#### **Participants**

2 groups of 35 children of primary school (24 males e 11 females) matched for age, IQ, sex, social and cultural background, no children with ODD and CD. No children with reading or mathematical impairments

<u>Tasks:</u> the same two letters of Study 4 <u>Procedure</u>:

- 1. Condition without facilitation
- 2. Training
- 3. Condition with facilitation



# **DEPENDENT VARIABLES**

Variables related to the quality of the text:

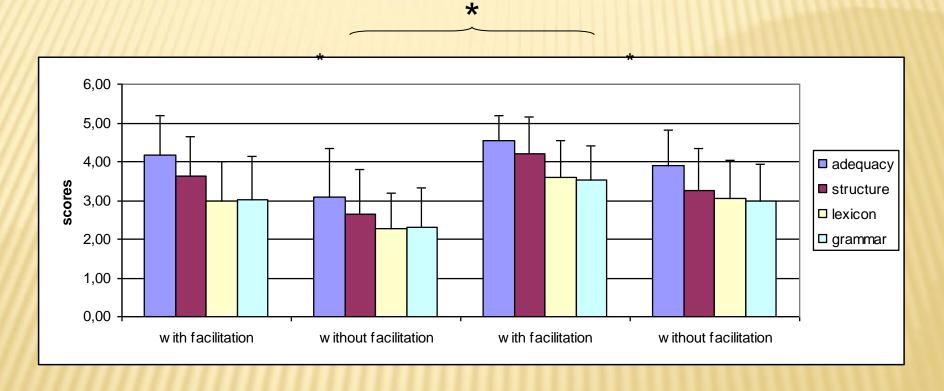
× Adequacy, Structure, Lexicon and Grammar
× Richness of ideas

Quantitative parameters:

× Number of words

× Number of errors (%)

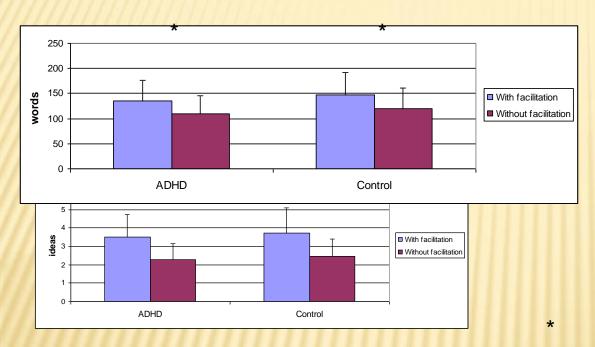
#### Quality of the text: ADHD vs Controls



ADHD

Controls

## TOTAL WORDS AND RICHNESS OF IDEAS: ADHD VS CONTROLS

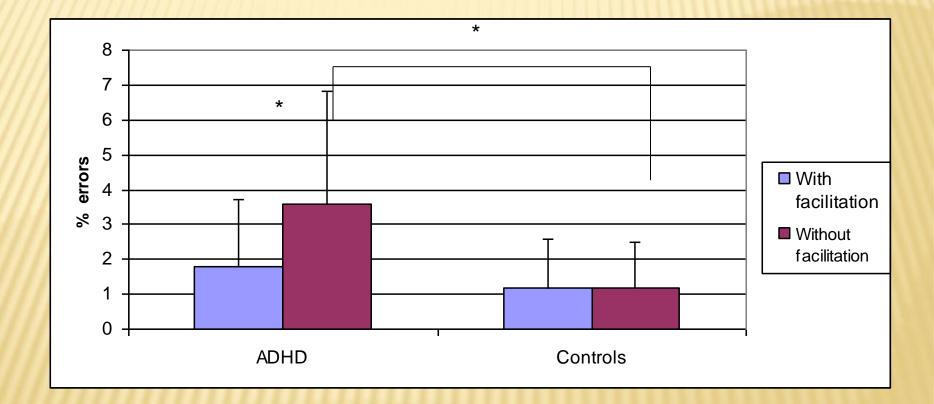


#### **Total Number of Words**

\*

**Richness of Ideas** 

## PERCENTAGE OF ERRORS: ADHD VS CONTROL



## **CONCLUSION OF STUDY B**

- In general children of both groups took advantage from the use of the guide-scheme
- Quality of essays of both groups was better with guidescheme than without it, even if ADHD children made worse than controls
- With guide- scheme children wrote more and produced more ideas
- In the condition with facilitation ADHD children made less errors and we did not find any significant difference between groups

## **General Conclusion**

#### First Part

#### Studies 1, 2, 3

ADHD children have **general** writing difficulties, in particular on:

- Organization of concepts
- Planning
- Production of ideas
- Richness of lexicon
- Orthographic and spelling errors
- In addition, ADHD children:
- Write very short text
- Use few adjectives and subordinates
- Make many repetitions

All these problems seem to be independent of the type of essay and of the type of instructions

# **BEHAVIORAL INTERVENTION**

# CLASSWIDE PEER TUTORING (DUPAUL)

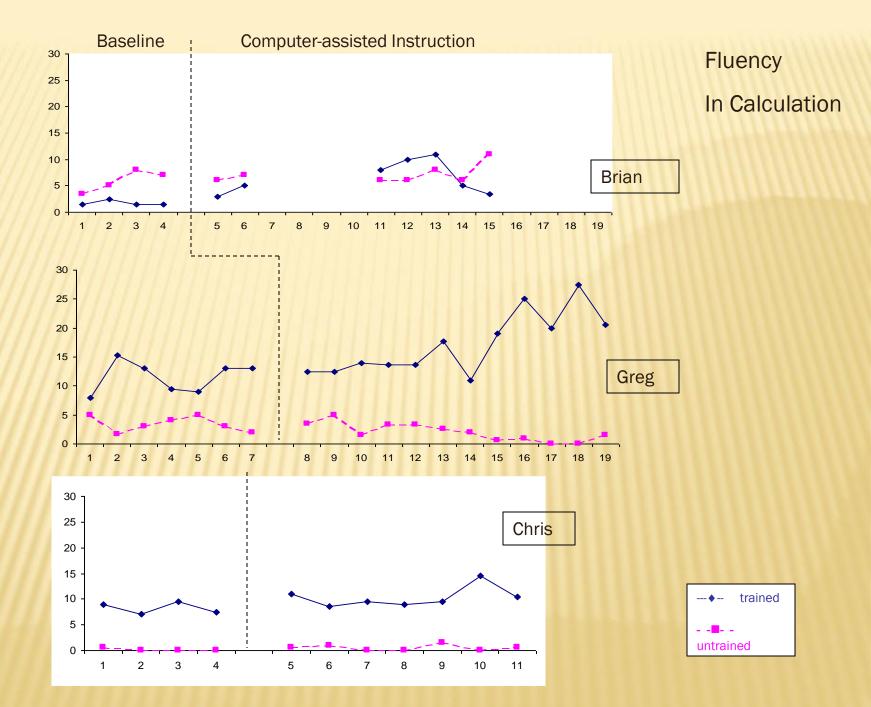
- **V** Divide the class in pairs
- ♂ Give school tasks
- 8 Alternate tutoring
- ♂ Give immediate feedbacks
- **8** Monitor the progresses and give reinforcements
- **Change every week the pairs**

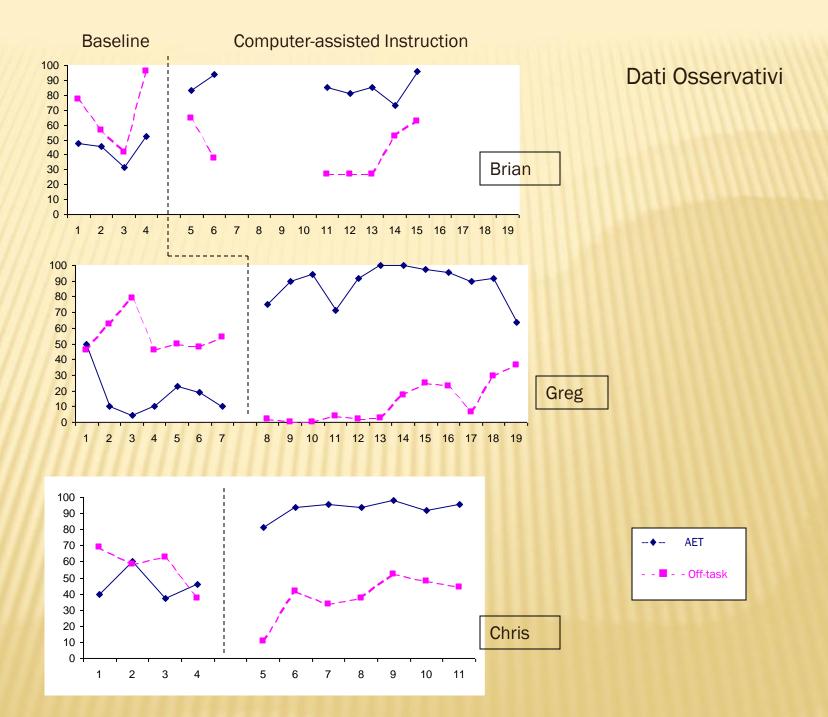
# EFFECTS OF CWPT IN ADHD (DUPAUL ET AL., 1998)

- × 18 children of different grades with ADHD
- CWPT increases effort and reduces behaviors off-task
- × 50% of ADHD children improve achievement
- × High satisfaction of children and teachers

#### CAI (MAUTONE, DUPAUL, & JITENDRA, 2005)

- × 3 students with ADHD between grades 2 and 4
- CAI = Math Blaster software 15 min X 3 days per week





# SELF-MEDIATED STRATEGIES

## SELF-MONITORING IN ADOLESCENTS (GUREASKO, DUPAUL, & WHITE, 2006)

# **NEUROPSYCHOLOGICAL INTERVENTION**