

Heidelberg Parent-based Language Intervention HPLI

Parent-based group intervention
for language delayed toddlers



**HEIDELBERG PARENT-BASED
LANGUAGE INTERVENTION**

Anke Buschmann

Nyborg, 19th of March



About myself

- Was born in Meißen, a small town near Dresden
- Went to school in Meißen
- Studied psychology in Marburg
- 2001-2009 – worked in the sozial pediatric centre of the University Clinic Heidelberg while earning my doctorate degree
- **2002-2003 - developed HPLI**
- Various teaching contracts at Pädagogische Hochschule (teachers' academy)
- Founded FRIZ the Early Intervention Centre in 2009



FRIZ I EARLY INTERVENTION CENTRE

Psychological Assessment

Consulting & Intervention

Applied Research

Training



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Structure

1. Background
2. Concept of the Heidelberger Parent-based Language Intervention (HPLI)
 - General conditions
 - Why we work with parents?
 - Aims
 - Contents (examples)
 - Methodology
3. Evaluation (randomized-controlled-trial)
4. Implementation in daily practice

Supplement: Adaptations of the HPLI



1. Background

1. Parents come to social pediatric centre with 4-year-old children with SLD
2. Parents were already concerned by the 2nd year
3. Intervention often started at 4-5 years



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The parents are told ...

They will grow out of it.

If a child can hear then it will also learn to speak.

Each child begins to talk at some point in time.

Boys begin to speak later anyway.

A child who grows up with two languages speaks later.

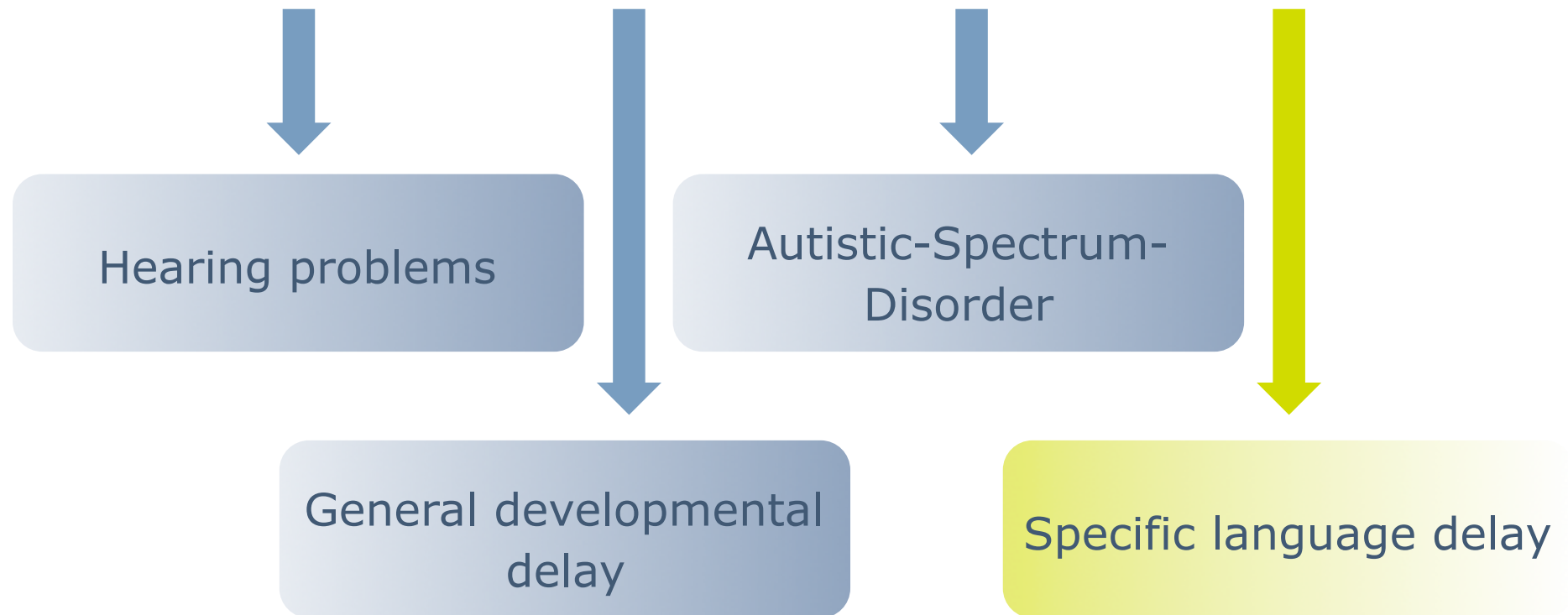


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Causes of language delay at the age of 2



Results:

Standardised diagnostic work up in 2-year-old children with language delay (2004-2006)

N = 100

- 4 autistic children
- 18 children with global developmental delay
- 78 children with specific language delay (late talkers)

 **22% will not resolve the problem spontaneously**

Results published:

Buschmann, A., Jooss, B., Rupp, A. et al. (2008). Children with developmental language delay „late talkers“ at 24 months of age: Results of a diagnostic work-up. Developmental Medicine and Child Neurology, 50, 223-229.



Example: Late talker

- Girl, 2;6 years old
- Second born
- Normal cognitive development
- Normal receptive language skills
- Very communicative



How do language deficits in toddlers develop further?

24 Months

Late Talkers

36 Months

50-70 % SLI
Specific language impairment

30-50%
Late Bloomer

Paul, 1993; Rescorla et al., 2000; v. Suchodoletz, 2004; Sachse, 2007



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How do children with SLI at the age of 5 develop further?

- **Language impairments** tend to **persist** into later childhood, adolescence and early adult life
(Aram & Nation, 1980; Cantwell et al., 1989; Johnson et al., 1999; Mawhood et al., 2000; Stothard et al., 1998; Tomblin et al., 1992)
- **Deficits in literacy development / Dyslexia** (McArthur et al., 2000)
- **General learning problems** (Aram et al., 1984; Shevell et al., 2005)
- **Lower school degrees** (Snowling et al., 2001)
- **Psychiatric disorders** (anxiety-related symptoms, social and behavioural difficulties, attention-deficit problems)
(Baker & Cantwell, 1987; Beitchman et al., 1996; Snowling et al., 2006)



“Wait and see” approach



Targeted language-based
early intervention



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2. Concept of the Heidelberg Parent-based Language Intervention (HPLI)

2.1 General conditions

2.2 Why use parent-based intervention?

2.3 Aims for parents, aims for children

2.4 Contents of the training units

2.5 Methodology



2.1 General conditions

Interactive programme for parents of 2 year-old children with language delay

- Initial meeting, diagnostics
- 5-10 participants (couples or single parents, grandparents, nanny)
- 7 meetings of 2 hours (duration: 14 weeks)
- Time between meetings - 2 weeks
- Booster session after 6 months
- Post-training diagnostics of the children at age 3



2.2 Why use parent-based intervention?

Parents are the most important role models and communication partners

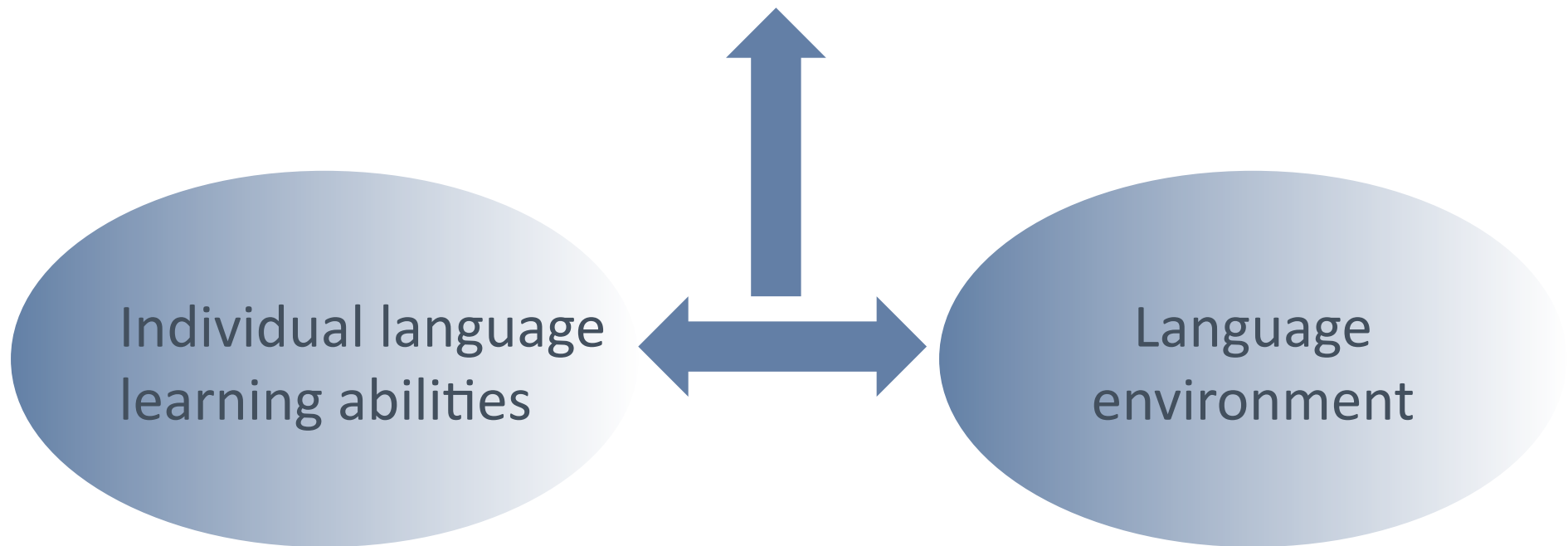


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Language acquisition



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But parents ...

- Believe that the child is just too lazy
- Feel guilty
- Are concerned



Due to the child`s delay, parents alter their behaviour. They tend to less supportive behaviour:

- Anticipate childrens´ needs (so that there is no need for talking)
- Pressure the child to repeat words
- Reduce the cognitive complexity of their language
- Reduce language input or
- Overwhelm the child with language

"Say flower"





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Parents seems to lose sensitivity

Improving parent interaction is a chance to help the child in language development



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2.3 Aims for parents

- Strengthen parents as the important communication partner for the child
- Perceiving verbal and nonverbal communication attempts of the child and reacting adequately towards them
- Becoming sensitive to the potentials for language promotion in every day routines
- Using language promotion techniques in every day life and while looking at picture books
- Reducing inhibiting strategies/interactions



Aims for children

- Normal language proficiency by the age of 3 by improving the language input these children get
- Increased pleasure in speaking and communicating
- **Accelerated increase of passive and active vocabulary**
- Basic grammar skills and further improved grammar skills
- Reduced fear of making mistakes



2.4 Contents of the 7 training units

Part I



Basics
(Course 1-2)

Part II



Sharing picture
books (2-4)

Part III



Transfer and
supervision (5-7)



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2.4 Contents of the training units

Part I (Unit 1)

- Prerequisites for language development
- Causes for language delay
- Language promoting - basic attitude



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Examples Unit 1

Prerequisites for language development and causes for language delay

First step: Language comprehension

"Imagine you traveled to a place where you can neither say nor understand a word. What would help you to understand that new language?"

"Listen to the foreign language and tell me what you understand."



Aim: Parents understand that language development depends not only on normal hearing abilities, cognitive skills as well as motivation. There are specific language processing abilities.

Specific language processing abilities:

- Detect word boundaries
- Use rhythm of the language
- Understand the meaning of the words
- Memory



"You have a local accompanying you. How would he/she have to behave to help you?"

- Name and point the object
- Speak slowly
- Emphasize the important words
- Repeat the important words
- Use simple and short sentences



Second step: Language production

"When you understand some words what would help you to learn to speak?"

- Forming sounds
- Remembering the order of the sounds in the word
- Quickly retrieving the word
- Knowing the grammar of the language



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"You have a local accompanying you. How would he/she have to behave to help you?"

Aim: Parents should recognize that it is important for their child to practise speaking

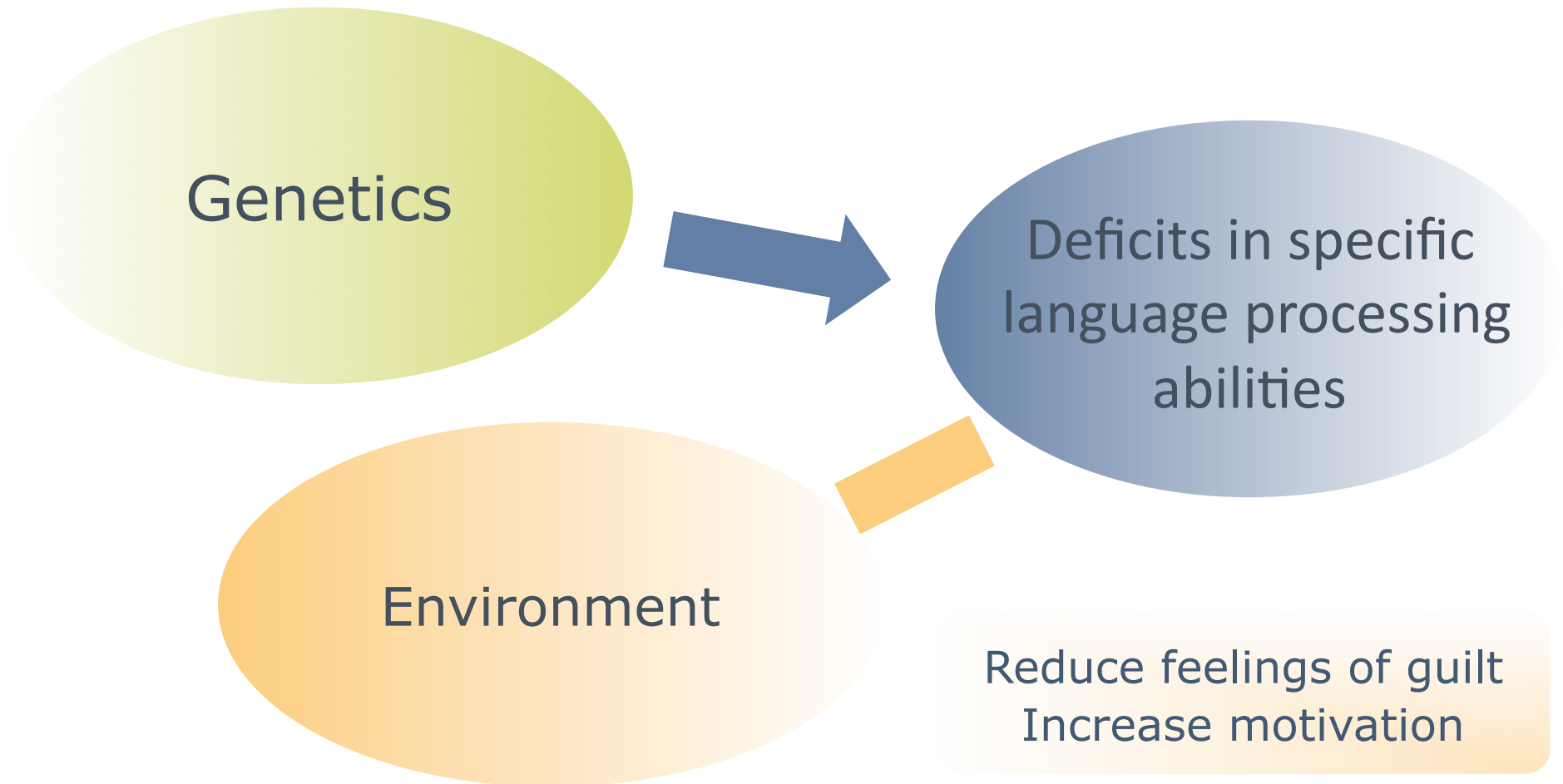


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Causes of language delay



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Part II (Unit 2-4)

- Developing basic strategies for **sharing a picture book**
- Using language promoting strategies
- Use of questions



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Examples Unit 2

First step: environment

"What would the situation have to be like so that you and your child can really enjoy sharing a picture book and concentrate on doing so?"

What are typical problems?

- Older siblings want to look at the book as well and do all the talking
- Seating positions
- Pacifier



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Second step: How to share picture book reading?

Video analysis

1. You see the videos without any question.
2. You see the videos again and answer four questions.

Aim: Parents learn what they can do to motivate their child to be more interested and active in picture book sharing



Parents answer 4 questions:

1. Who leads the situation?
2. Who has the largest part of communication?
3. Does the mother respect what the child is interested in?
4. Does the mother wait after turning the page to see if the child would like to show or say anything?



Important strategies:

The child leads

Wait – Observe – Listen

Shared focus of attention
(torch model)



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Third step: Role playing



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Fourth step: Home work



- Find a time within your daily routine when you can look at a picture book with your child
- Consider the environment
- Use the strategies you have learnt today (child leads, wait, observe, follow the child's interest, respond to the child's communication attempts)



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Fifth step (Unit 3): The right book

Sixth step (Unit 3): Focused language promoting strategies

Seventh step (Unit 4): Questions activating the child to talk



Part III (Unit 5-7)

- **Analysis of home video sequences**
- Transfer to daily routines
- Transfer to shared games
- Significance of finger games, songs to actively join with singing and dancing
- Dealing with media



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2.5 Methodology

- ➔ Structured intervention
- ➔ Contents build on each other
- ➔ The parents' active participation (using parental competencies)
- ➔ Home training, video supervision



Advantages of working with small groups of parents

- Parents do not feel alone with their problems
- Parents are interested in exchange of ideas (Ritterfeld, 1999)
- Teaching knowledge without being too “paedagogic”
- Parents can exercise language promoting strategies
- Parents learn from each other (model learning)
- Affordable



3. Evaluation study of the HPLI

Dep. Child Neurology University Hospital Heidelberg



In cooperation with paediatricians of the Rhein-Neckar-Region

Funded by L. Klinge Foundation, C.D. Foundation, Günter Reimann Dubbers Foundation



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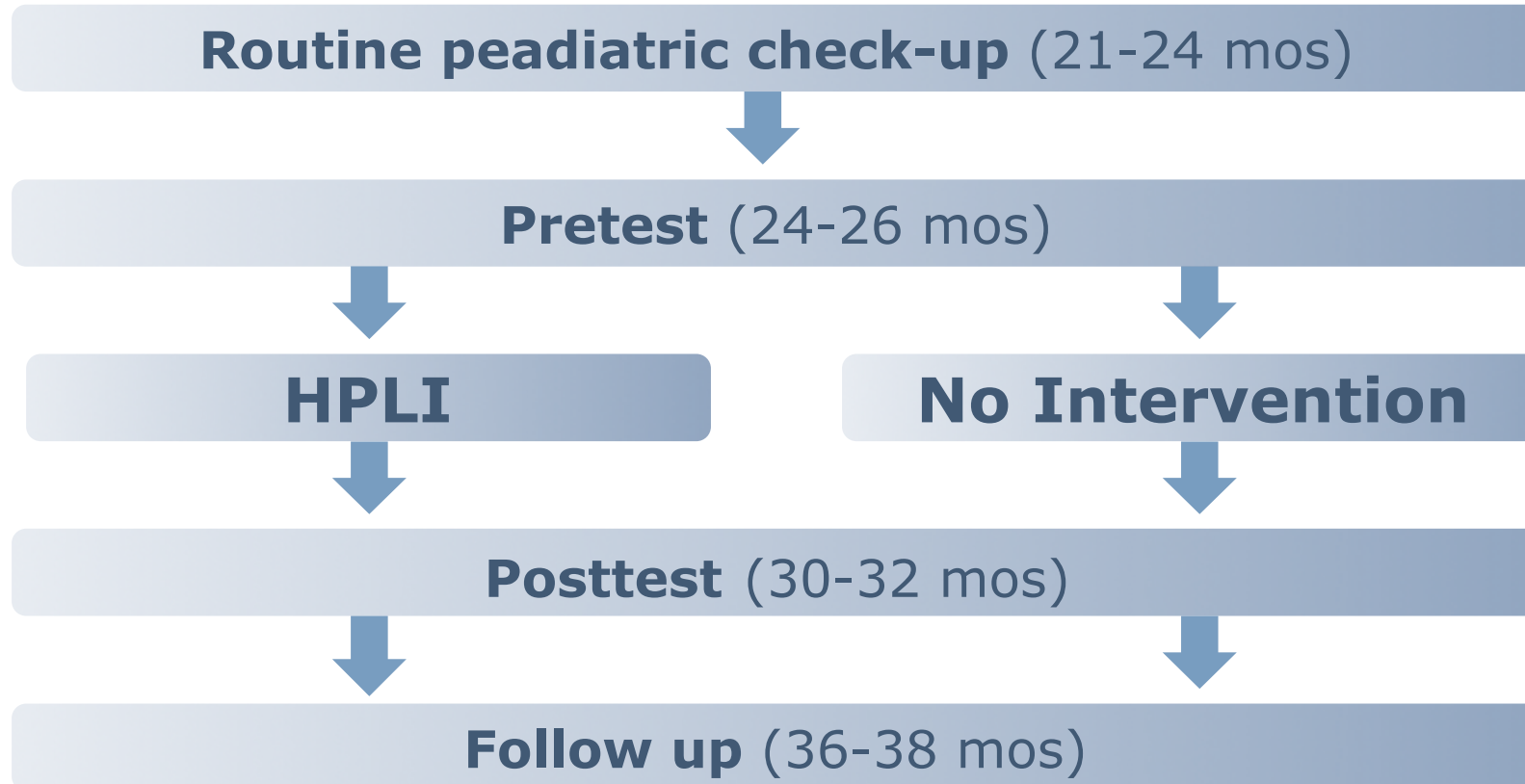


Randomized-controlled-trial

- **Random assignment to treatment group and non-treatment group**
- Pre-diagnostics with standardised tests (ELFRA-2, SETK-2)
- **Posttest and follow-up diagnostics by a “blind” examiner** (in terms of pretest results and group identity)
- Posttest and follow-up diagnostics with standardised tests (ELFRA-2, SETK-2, SETK 3-5, AWST-R)



Design



Language therapy if necessary



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Results

Comparison of groups, 47 toddlers with specific expressive language delay

Intervention group, 24 toddlers

Non-intervention group, 23 toddlers

Results published:

Buschmann, A., Jooss, B., Rupp, A. et al. (2009). Parent-based language intervention for two-year-old children with specific expressive language delay: a randomised controlled trial. Archives of Disease in Childhood, 94, 110-116.



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Sample

- 60% male
- 70% second, third or fourth born toddlers
- Mothers: 43% A level/SAT, 47% high school, 10% non-high school graduate
- 40% SELD within the family

No group differences in terms of age, gender, birth order, maternal education and family history of SLI.

Showed normal cognitive skills and normal receptive language

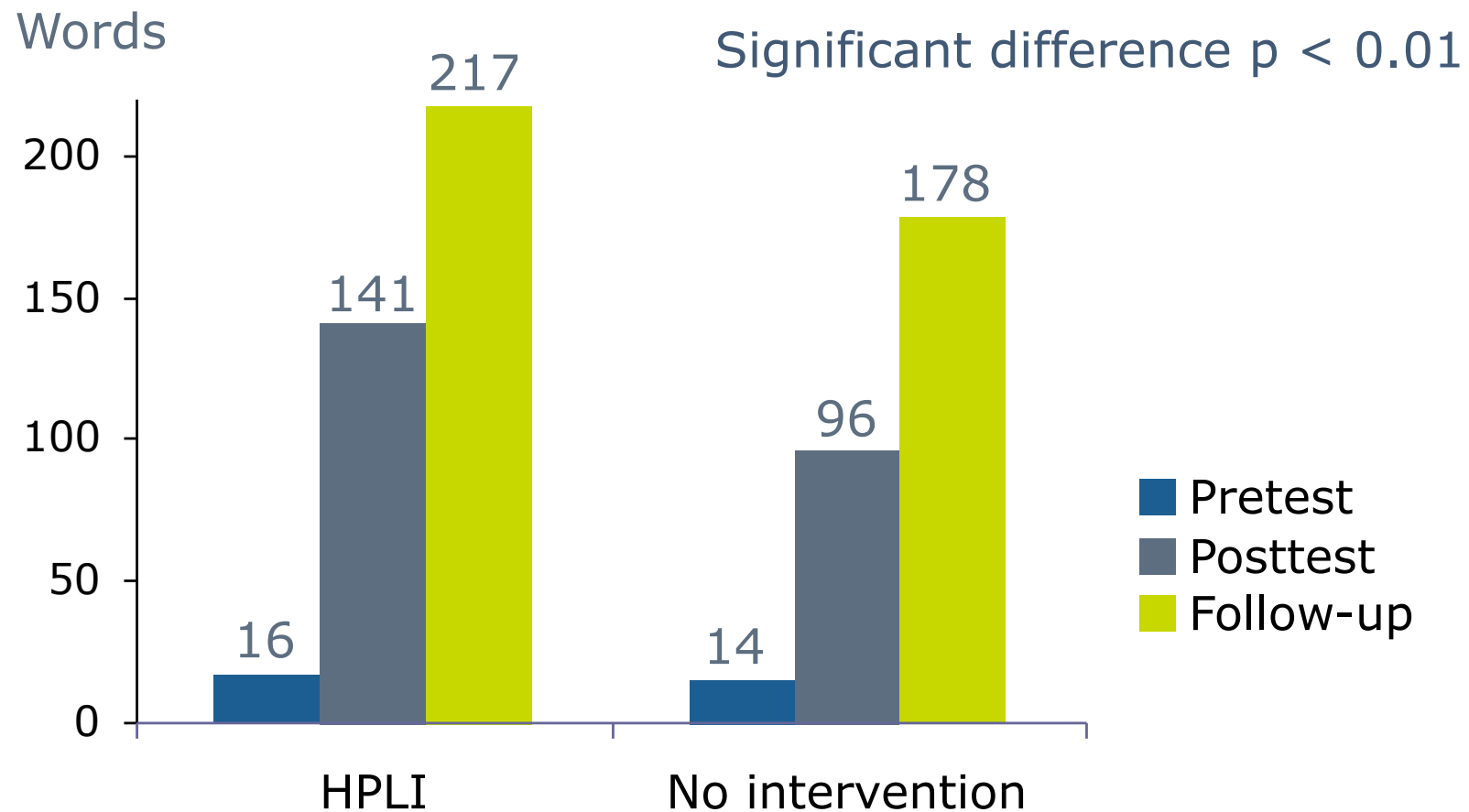


Results

- Parent report
- Standardized testing



Parent report – Vocabulary

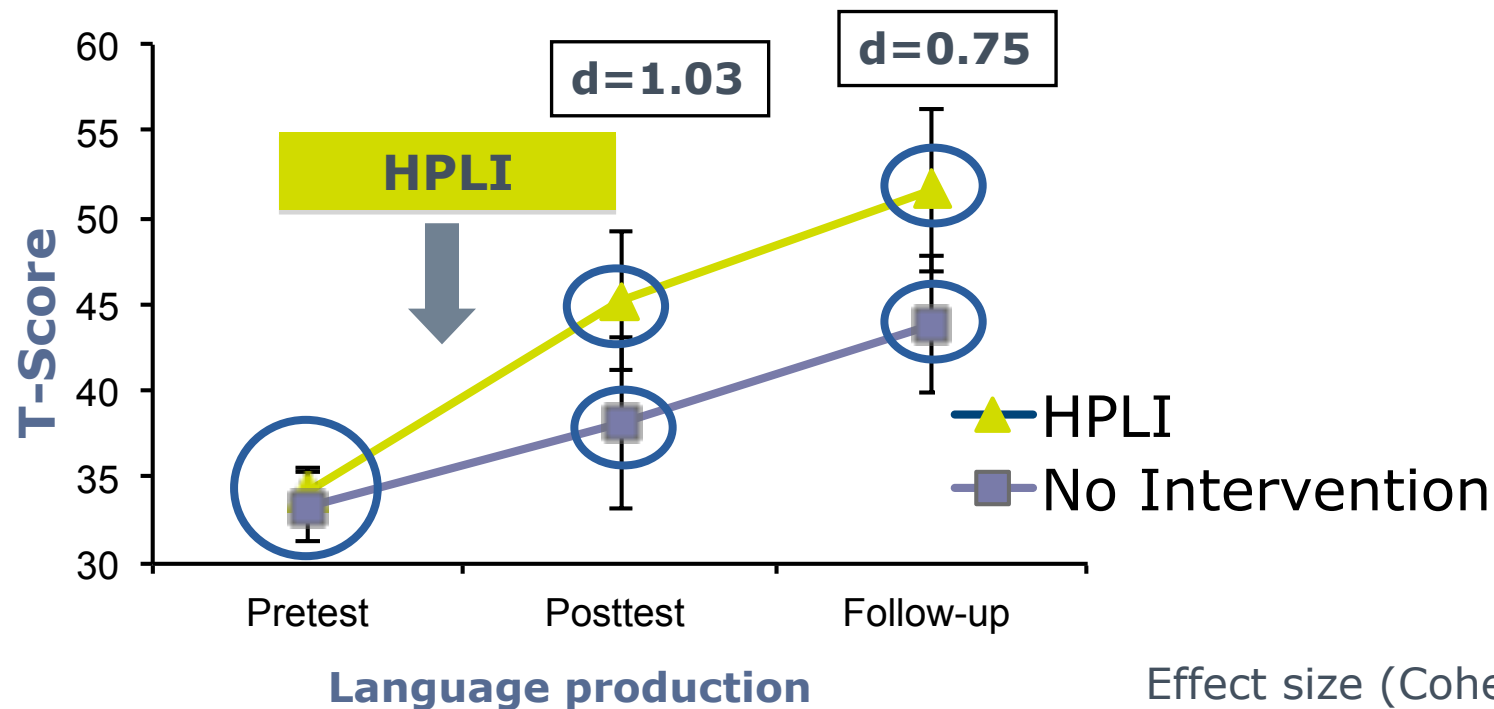


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Development of language production



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Qualitative analysis

➔ Children in the HPLI group use significantly more verbs and prepositions than children in the control group



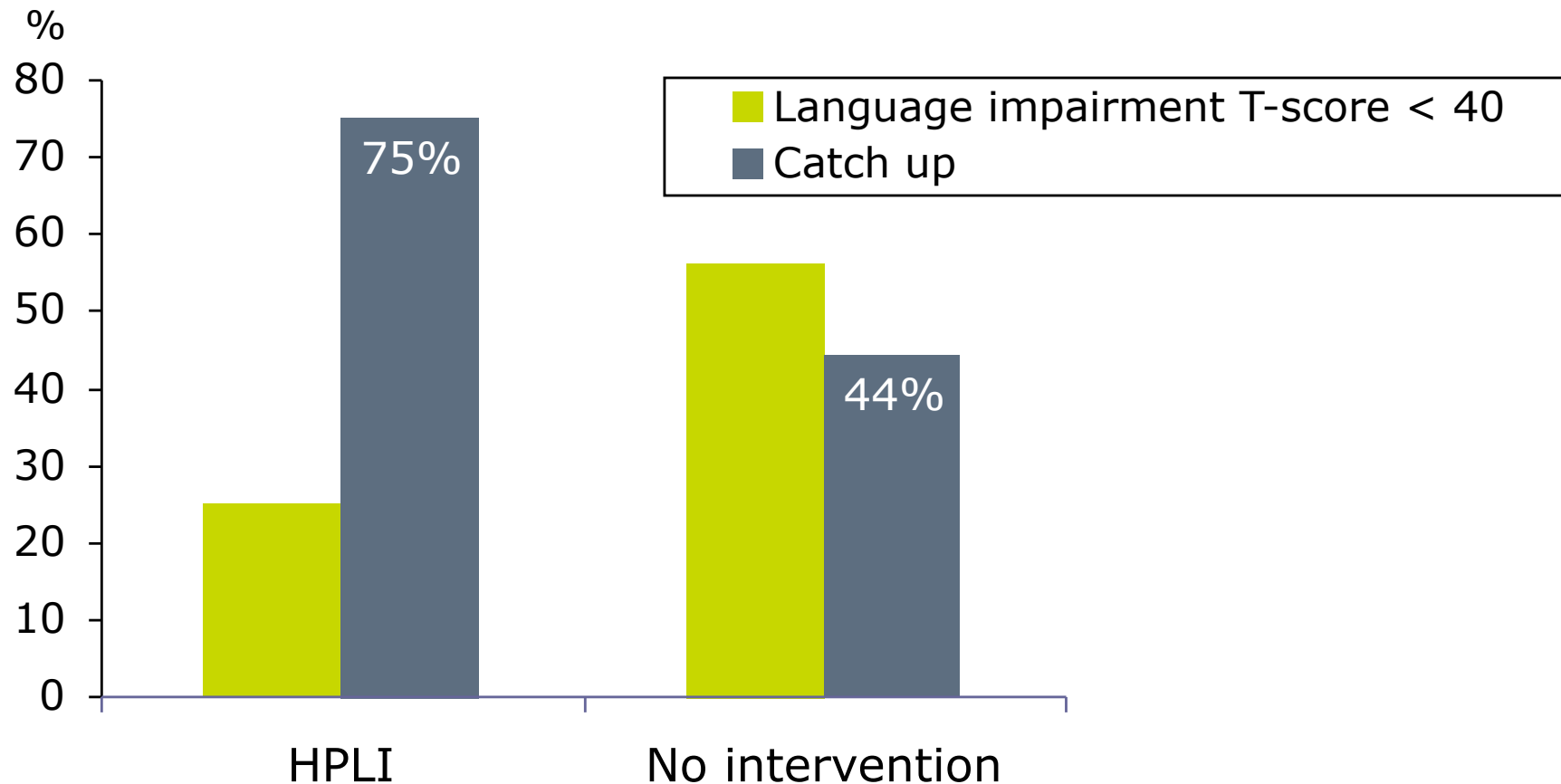
Repeated measurements

- **significant main effect for group**
 $F(1,97) = 8.23, p = 0.006$
- **significant interaction between group and test**
 $F(2,39) = 3.80, p = 0.026$
- not a significant test effect
 $F(2,39) = 2.26, p = 0.11$



How many children are in the normal range at 3?

Standardised language diagnostic (SETK 3-5)



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Conclusion

The HPLI is an

- **effective**
- **affordable**

group concept for parents of late talking toddlers.

➡ The **rate of clinically manifested SLI** could be **halved**.



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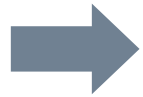


Parental Feedback

- Consistently positive feedback
- Exchange within the group very helpful
- More patient, secure and attentive
- *"Me and my daughter now entertain the whole bus."*



4. Implementation in daily practice



Because of the “wait and see” approach the implementation in daily practice is not so easy



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4. Implementation in daily practice

➡ HPLI is only applied by certified trainers

Three training modules

- Introductory seminar (2 days)
- Advanced seminar (2 days)
- Supervision (individual)
- Detailed trainer manual



Demands on trainers

- Creation of a comfortable trusting atmosphere and co-operative working relationship
- Motivating participants to be actively committed (e.g. asking questions, reporting their experiences)
- Professional knowledge and experience



- Methodical and didactical skills
 - Being well-prepared
 - Good time management
 - Considering communication rules
 - Being a good role model
 - Using easy language
 - Giving a lot of examples
 - Giving the same time to all participants (encouraging the shy – restricting the dominant participants)
 - Using the parent's knowledge (prompting)
 - Praising the participants



Supplement: Adaptations of the HPLI



HPLI-GDD - Heidelberg **P**arent-based
Language **I**ntervention for parents of
children with **G**eneral **D**evelopmental **D**elay

Buschmann & Jooss, Frühförderung Interdisziplinär, 2010
Buschmann & Jooss, Trainermanual, Elsevier, 2012



HPLI-SLI - Heidelberg **P**arent-based
Language **I**ntervention for parents of
children with **S**pecific **L**anguage **I**mpairment
at the age of 3 to 6 years

(Buschmann, 2003)



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Adaptationen des HET

TALC – Training Autism Language Communication
Interactive Training for parents of autistic children

Fröhlich, Jooss, Noterdeame & Buschmann, Elsevier 2013

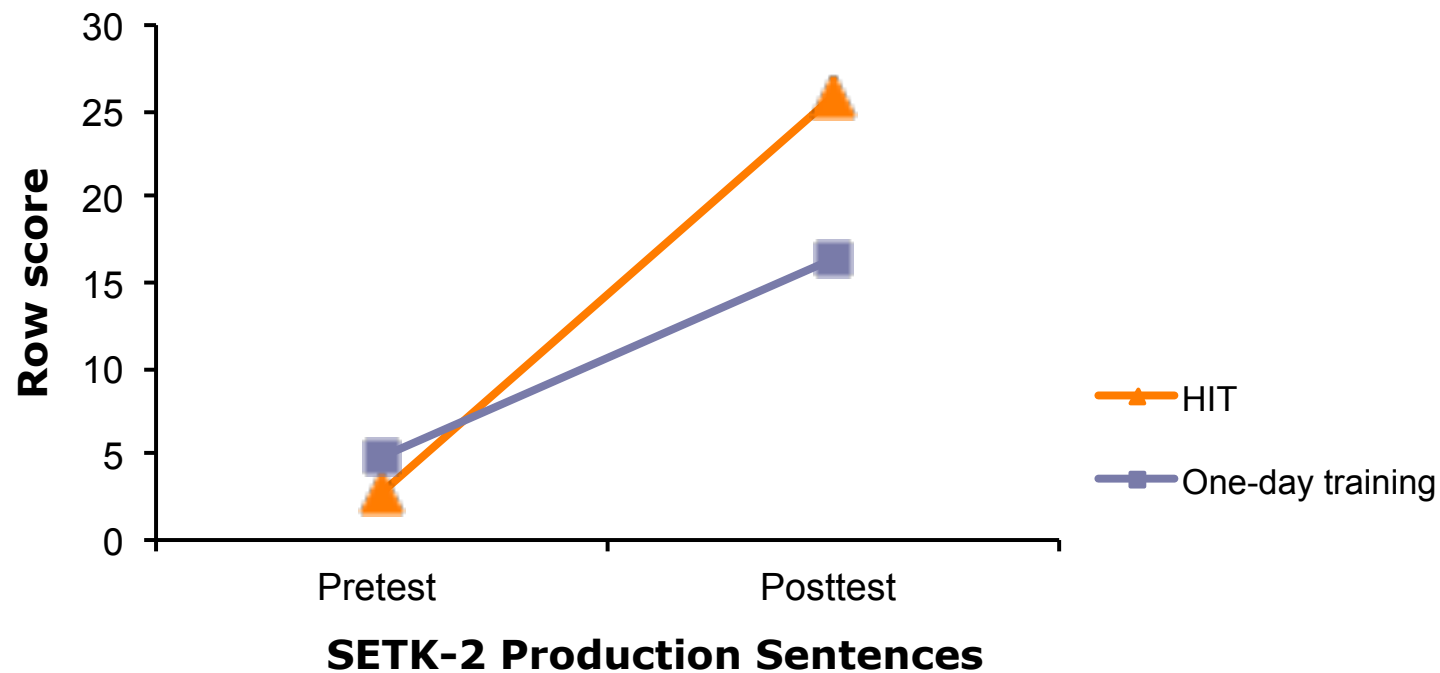


HIT - Heidelberg Interactive Training for preschool teachers

Buschmann, Jooss, Simon & Sachse L.O.G.O.S., 2010
Buschmann & Jooss, Verhaltenstherapie & psychosoziale Praxis, 2011



Evaluation HIT



Repeated measurement:
Interaction Time x Group $p < 0.05$



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