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Rohrmann, Tim (2024). **Gender perspectives on language development and support in ECEC**. Paper presented on the 32nd Annual EECERA Conference, Brighton/United Kingdom, 4.9.2024.

Research on language development and school success shows advantages of girls, and a higher proportion of boys in problem groups. Our research analyzes if such gender differences are relevant already in early childhood. It connects perspectives from the health system and the educational system, and includes the views of practitioners. Research shows systematic advantages of girls in comparison to boys in reading at school (McElvany 2023). Data from the German National education panel (NEPS) document gender differences in language development already in early childhood. However, there is limited research on the topic available from ECEC contexts. The research combines educational and medical approaches to language development and disorders, by integrating perspectives, and analyzing statistical data, from both sides. In a mixed-methods design, statistical data from language assessments in ECEC, at school entry, and health/medical data, were analysed and related to results of group discussions with expert practitioners. The study follows EECERA Ethical Guidelines. Anonymity of all data was strictly secured. Results were shared with all participating stakeholders. Boys show more deficits in school entry assessments and higher proportions of language development disorders. However, gender aspects are not taken into consideration in qualification for language development support in ECEC. The results clearly show that gender aspects are relevant for understanding language development delay and disorders, pointing to the need to develop gender-conscious strategies in ECEC as well as in speech therapy. By including the views of ECEC professionals and speech therapists, the project opens up new ways for collaboration and research.

Keywords

gender, language development, language support, speech therapy, school readiness

Presenter:

Tim Rohrmann, HAWK Hildesheim University of Applied Sciences and Arts, Germany



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HAWK Point of departure




4 QUALITY EDUCATION

SUSTAINABLE DEVELOPMENT GOALS

Why focus on language on communication?

Because this is fundamental for finding solutions for the global polyc and a sustainable future.



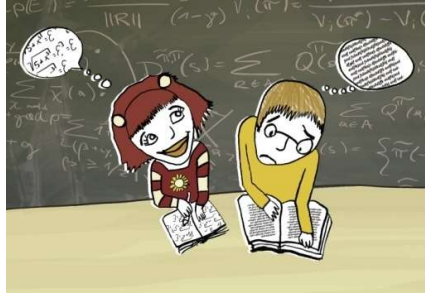
5 GENDER EQUALITY

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6

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Point of departure



Research on language development, motivation for reading, and success in school show advantages of girls, and a higher proportion of boys in problem groups.

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7

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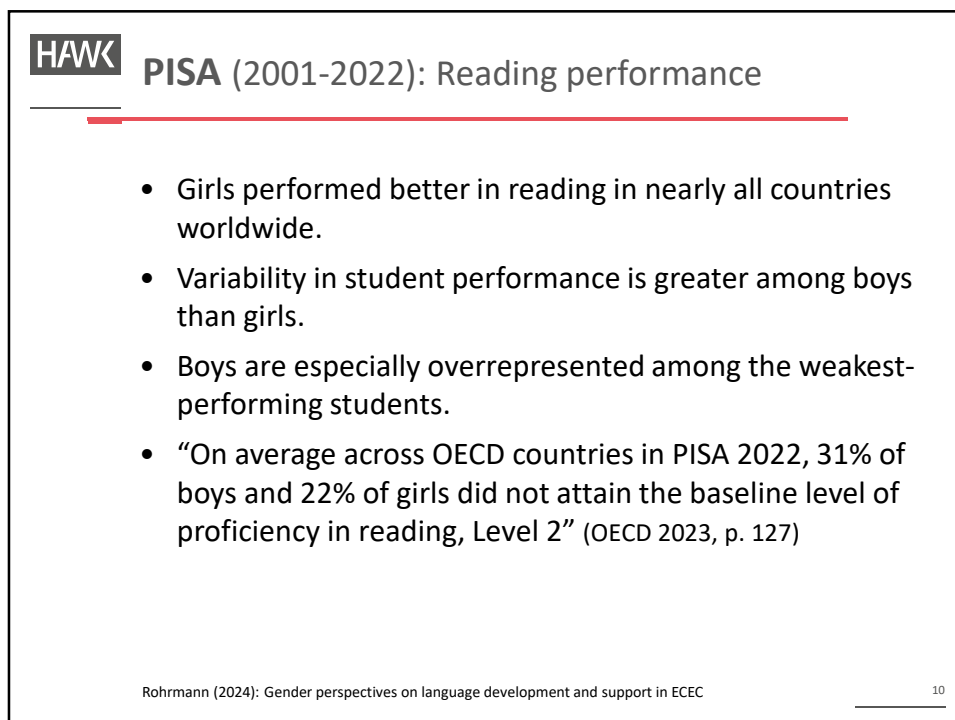
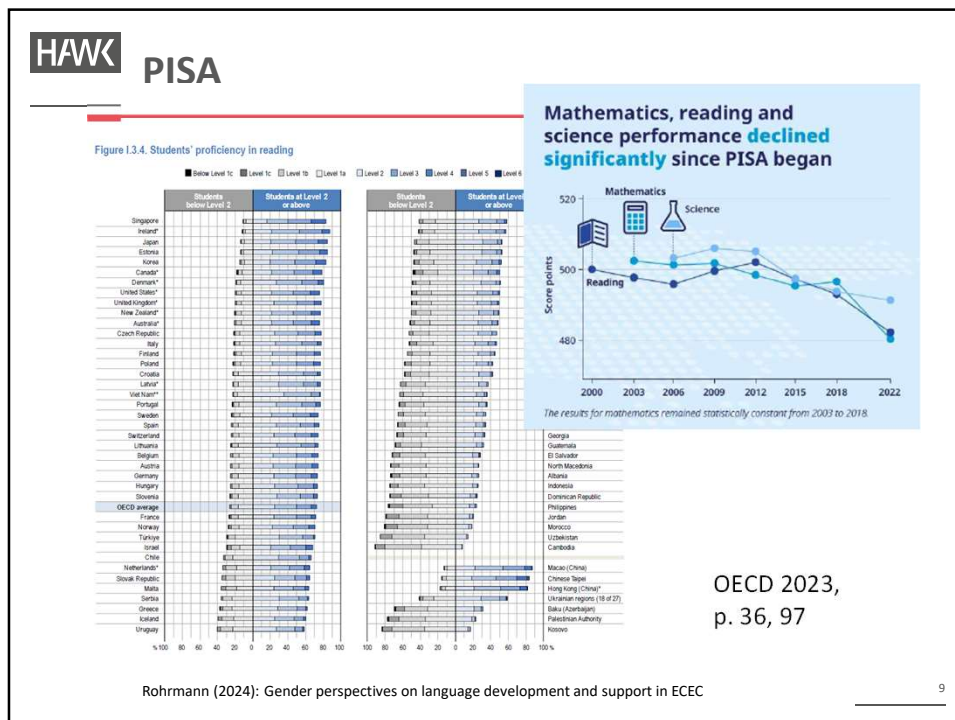
Gender in language development

- Girls start to speak 1 to 2 months earlier compared to boys.
- Their word connections and first sentences are longer, their grammar is more elaborated and shows less mistakes.
- Mothers and fathers speak differently with their children, and adults speak differently with sons and daughters.
- Study results about the development in the following years are contradictory.

(Autorengruppe 2022, Erikson et al. 2012, Rinaldi et al. 2023, Rohrmann & Wanzeck-Sielert 2023)

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8



HAWK PIRLS

The Progress in International Reading Literacy Study (PIRLS) has monitored trends in reading achievement at the 4th grade every five years since 2001.

The assessment includes not only reading competences, but also aspects of the social background, reading habits, teaching strategies, and schooling situations.

Results of the recent PIRLS study show systematic advantages of girls in comparison to boys in reading motivation, reading self concept, and reading behavior

(McElvany et al. 2023, S. 4; Mullis et al. 2023).

In nearly all participating countries, girls reading competences are in general significant higher compared to those of boys.

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11

HAWK PIRLS

- In some countries, gender differences in reading competence are relatively small,
- however, girls have higher reading motivation, and more often read in leisure time “just for fun”.
- Boys who enjoy reading and read much, are as good as girls in reading.
- Educators should support boy’s reading motivation systematically! (McElvany et al. 2017, 2023)

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12

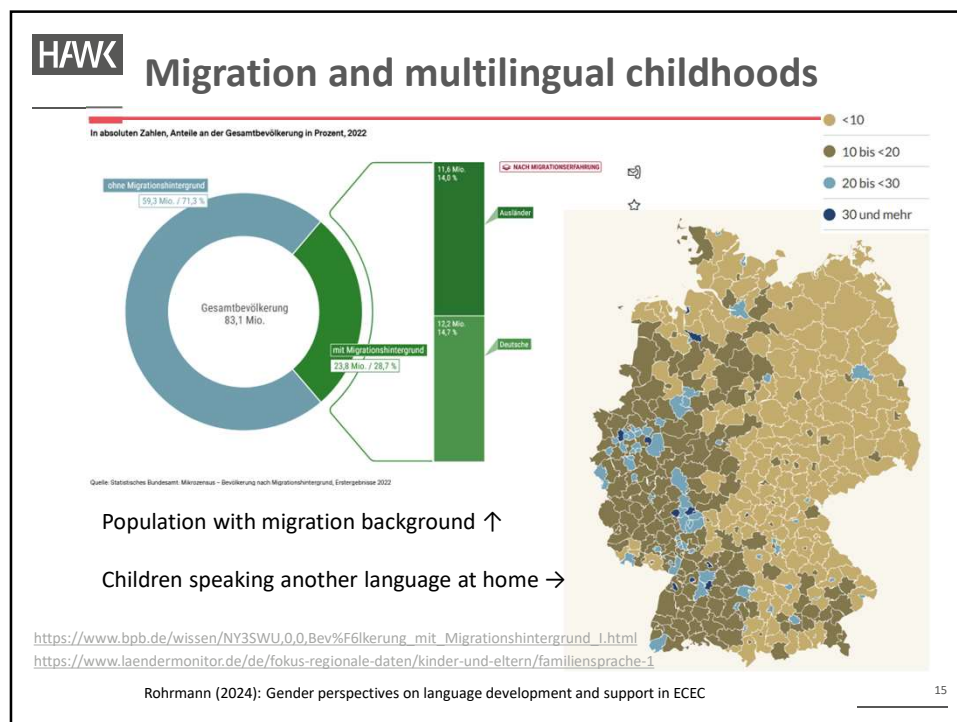
Relevance for early childhood

- Research documents gender differences already in kindergarten age.
- This is relevant for the development of literacy and reading competences in school age.
- However, there are few statistics and research results from the early years available.
- Why boys show more deficits in language development remains an open question (Ahufinger & Aguileara 2022)

Background in Germany

- Children's deficits in language acquisition are a major issue in the German system of Early and Primary Education.
- Concepts for support of language development and acquisition were developed in all Federal states of Germany during the past two decades.
- Most prominent topic in the debate is the growing proportion of children with migration and multilingual background.

(Autorengruppe Bildungsberichterstattung 2022; Hruska, Rohrmann & Wirts 2024; Rohrmann et al. 2021)



- HAWK Migration and multilingual childhoods**
- 25% of Germany's population, 30% of children in ECEC, and 40% of all children under 5 years, have a migrant background.
 - Two thirds of children with migration background do not speak German as first language at home.
 - Although many of these children are born in Germany, their integration into society remains a challenge.
 - Parents with migration background have lower educational levels, and these families are often at risk → both impacts their children's educational success.
- Rohrmann (2024): Gender perspectives on language development and support in ECEC 16



Background in Lower Saxony

In the Federal state of Lower Saxony, support of communication, interaction, and language competences of children is established as legal obligation of ECEC institutions.

They have to be included in the pedagogical concept of providers and centers (§3).

Moreover, centers have to assess language competences in the last year before school entry (children 5 yrs old), and if deficits are found, children should be supported „individually and differentiated“ (§14).

No other learning area is emphasized so strongly.

<http://www.nds-voris.de/jportal/?quelle=jlink&query=KiTaG+ND&psml=bsvorisprod.psm1&max=true&aiz=true>

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17

An abstract graphic design featuring a white background with a pattern of small black dots. Overlaid on this are large, vibrant splatters of purple, blue, and green. The text "A regional research project" is centered at the bottom in white.

A regional research project

Research questions

- ***Which statistical data on gender differences in language delay and disorders are available on regional level ?***
- ***Do these results correspond to assessment of language competences in kindergarten ?***
- ***How are sex/gender, multilingual background and social status correlated ?***

Questions and target groups

- a) Assessment of girls' and boys' verbal competences and language acquisition in ECEC centers
- b) Proportion of girls and boys with needs for language support at school entry
- c) Proportion of girls and boys in speech therapy (financed by health insurances)
- d) Perspectives of practitioners
- e) Perspectives of experts in regional support structures for language acquisition in ECEC

HAWK Assessment of language competences in the early years

- In the Federal State of Lower Saxony, there is no standardized assessment system before school entry.
- ECEC centers apply different assessment methods and tests.
- More complex and valid tests & methods are seldom applied because of lack of time.
- Results remain in the centers – there is no systematic assessment and analysis of results on regional or federal state level.
- Standardized assessment begins with the school entry assessment (Schuleingangsuntersuchung, SEU)


HAWK The „KEA“ sheet

	18-24 Mon.	25-30 Mon.	31-36 Mon.	37-42 Mon.	43-48 Mon.
Wortschatz	1-2 Wörter (z.B. Mama)	3-4 Wörter	5-6 Wörter	7-8 Wörter	9-10 Wörter
Sprachverständnis	Versteht einfache Anweisungen	Versteht einfache Anweisungen mit Zusatz	Versteht einfache Anweisungen mit Zusatz	Versteht einfache Anweisungen mit Zusatz	Versteht einfache Anweisungen mit Zusatz
Sprachproduktion	1-2 Wörter	3-4 Wörter	5-6 Wörter	7-8 Wörter	9-10 Wörter
Phonematische Bewusstheit	Versteht einfache Anweisungen	Versteht einfache Anweisungen mit Zusatz	Versteht einfache Anweisungen mit Zusatz	Versteht einfache Anweisungen mit Zusatz	Versteht einfache Anweisungen mit Zusatz
Dialogische Sprachverwendung	Versteht einfache Anweisungen	Versteht einfache Anweisungen mit Zusatz	Versteht einfache Anweisungen mit Zusatz	Versteht einfache Anweisungen mit Zusatz	Versteht einfache Anweisungen mit Zusatz

The KEA sheet is an easy-to-apply method to assess language development of children in the age of 1 to 5 yrs in five areas:

*Lexicon – Grammar – Speech comprehension –
Phonetic perception and production – Dialogue*

HAWK The „KEA“ sheet




We conducted a descriptive analysis of

- selected items identified as milestones in four areas
- focus on the age groups 3 to 5 yrs
- differences related to age and to multilingualism

Significant differences (Mann-Whitney-U-Test) and effect sizes for site of setting (Eta coefficient η^2) were calculated.

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HAWK The „KEA“ sheet: sample



- 169 children from 4 ECEC centers in and around Hildesheim
- 89 girls (52,7%) and 80 boys (47,3%)
- 79 children (46,7%) with multilingual background, ranging from 0% to 74,3% between centres
- Mean age: 5 years

We conducted descriptive analyses with all variables. Significant differences (Mann-Whitney-U-Test) and effect sizes for site of setting (Eta coefficient η^2) were calculated.

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The „KEA“ sheet: results

- Multilingual children show lower scores in all age groups.
- Girls score better than boys in most items and age groups, significant in 3 yrs old children. Standard deviations of boys' results are higher.
- Gender differences are visible in both groups, multilingual and monolingual children, with monolingual girls scoring highest and multilingual boys scoring lowest at least in some areas

The results also show deficiencies of the KEA sheet in regard of assessment of multilingual children.



School entry examination (SEU)

Results of SEU 2019 + 2022:

- Only half of children showed no findings
- More boys were in treatment because of language development disorders: 18,9% of boys, compared to 13% (2019: 10,7%) of girls.

Results of SEU 2023:

- Significant higher proportion of boys with language development disorders.

HAWK **School entry examination (SEU)**

Children with remarkable problems in language development

		%
All		23.3
Gender	male	27.2
	female	19.3
Educational background	low	39.2
	middle	21.8
	high	15.4
Migration background	without	18.2
	with	37.3

Nds. Landesgesundheitsamt (2023, S. 20)

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HAWK **School entry examination (SEU)**

Nearly 30% of children presented in the SEU speak another first language as German.

Children with migrant background, and children from families with lower educational status, have higher proportions of language development disorders.

Correlations and connections between migration background, multilingualism, educational status and gender will be assessed in the ongoing study.

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HAWK **Health insurance services for ESP**

- In all age groups, boys receive more Ergotherapy (occupational therapy), Speech therapy (logopedics), or Physiotherapy; with speech therapy as the most common form.
- In the age of 6, nearly one third of boys and one fifth of girls receive one of these support forms
- From 0 to 9 yrs, health insurance expenses for ESP services in Lower Saxony cover 64% boys – 36% girls (2019-2022, relative proportion of children receiving services).

Wissenschaftliches Institut der AOK (WiDo) (2023)

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HAWK **(c) Health insurance services for ESP**

Abbildung 22: Patientenrate* bis 14 Jahre nach Leistungsbereichen (AOK, 2021)

Quelle: AOK-HIS 2022

Alter	Jungen je 1.000 Versicherte	Mädchen je 1.000 Versicherte
14	77	74
13	81	68
12	89	68
11	113	78
10	143	91
9	178	103
8	211	117
7	280	159
6	329	195
5	234	139
4	124	73
3	50	31
2	36	31
1	98	83
0	95	74

■ Sprachtherapie
 ■ Ergotherapie
 ■ Physiotherapie

* Patientinnen und Patienten werden je Leistungsbereich einmal gezählt

Wissenschaftliches Institut der AOK (WiDo) (2023)

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Regional support structures



Estimations of gender ratio of children with problems and delays in language development:

- KEA: ca. 60% boys in consultations
- Late Talker-Counselling (KIM): 1 girl - 8 boys
- DialogWerk: since January 2023 ca. 58% boys

Gender is seen as not relevant in individual consultations.

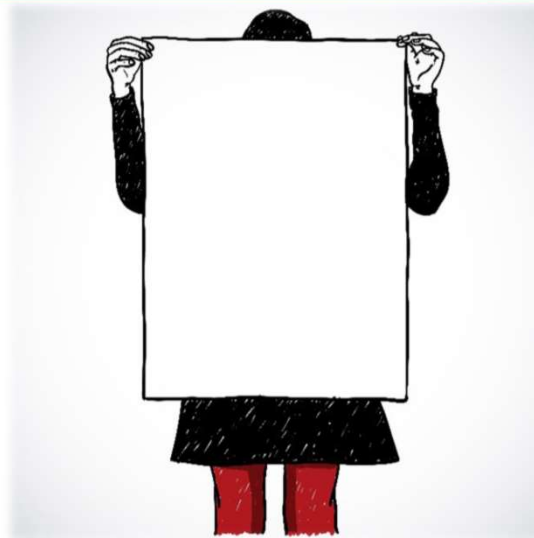
Gender aspects are not taken into consideration in the context of qualification and training for language support in ECEC (Rohrmann et al. 2021).

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33

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Overview on concepts for gender sensitive language support and speech therapy



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34

Some cautious conclusions

- The research results clearly show that gender aspects are relevant for understanding language acquisition, language development disorders, and language support and speech therapy
- Language education and support structures need a gender-sensitive perspective.
- The results point on missing links between educational and health system.
- The project opens up new ways for collaboration and research.




**Issues for further research
and practice development**

HAWK **Issues fur further research** 

- *Data analysis*: Interrelations of gender, multilingualism, migration and social status
- Analysis of assessments of language development in ECEC settings
- Perspectives of ECEC practitioners on gender differences in the context of language development and education
- Children’s perspectives on communication and language education in ECEC settings

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HAWK **Practice development** 

- Systematic observation and documentation with a gender perspective
- Analysis of the role of practitioners’ gender in interactions and language development
- Gender sensitive education in general (Nugroho et al. 2022, Rohrmann & Wanzeck-Sielert 2023)
- Reflection on language support programs and methods from a gender perspective.

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Questions for debate



- Do boys show more disorders in language development – or do they get more diagnoses and services, while girls' problems are overlooked?
- How could gender differences be assessed, documented and analysed in ECEC contexts?
- How can gender perspectives contribute to a better cooperation of ECEC and the health system?

... and this is just the beginning.

Dialogue is essential for further development.



Foto: M. Maaseveld

Thank you for your attention!

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Thank you for your attention!

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43



Faculty of
Social Work and Health

Hildesheim



photo: M. Maaseverd

Contact

Prof. Tim Rohrmann
HAWK Hochschule für angewandte Wissenschaft und Kunst
University of Applied Sciences and Arts

Faculty for Social Work and Health
Hohnsen 1 | 31134 Hildesheim | Germany

<https://t1p.de/h1vtf> · tim.rohrmann@hawk.de