

LANGUAGE COMPREHENSION OF FIRST GRADERS IN INCLUSIVE CLASSROOMS – SURVEY AND IMPLICATIONS FOR TEACHER PROFESSIONALIZATION

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Abstract

The hitherto neglected potential of teacher language is being focused with the objective to ensure learners' language comprehension in inclusive teaching contexts. As research data on language comprehension in inclusive learning settings is not yet available, the oral comprehension of words, sentences and texts by first-graders is being assessed using standardized test procedures. Based on the evidence, professionalization measures for teachers are being developed, tested and evaluated using videography and lesson diaries.

Keywords: *Speaking comprehension, oral comprehension, receptive language skills, language support in school, Specific Language Impairment (SLI).*

1. Relevance of the focus on language comprehension

The starting point of the study is the complex process of language comprehension as a significant competence for capturing teaching content and consequently achieving learning and educational goals. It is embedded in a research project called *Professionalization of Inclusive Teacher Language to ensure Language Comprehension (PROF-I-SV)* that focuses on the development and evaluation of measures to support language comprehension for learners in inclusive educational settings at the primary level. Language comprehension is often considered as self-evident and taken for granted (Elben, 2002). This is the main reason why there is significantly less attention in pedagogical and therapeutical work than the process of language production which, in contrast, is directly observable (ibid; Hachul & Schönauer-Schneider, 2019). Nation & Angell (2006) state that primary school teachers “tend not to notice comprehension difficulties, which are less high-visible” (quoted from Ellis & McCartney, 2011, 257).

Furthermore, there is a research desideratum in the field of language comprehension in science: Here the same phenomenon is observed, namely that the receptive side of language development disorders is often underestimated. Here, too, the focus is on the productive aspects of language and language difficulties.

As a result, language comprehension disorders often remain unrecognized (Clark et al., 2007). In addition to the above-mentioned difficulties in recognizing problems in language comprehension, children's coping strategies also play a significant role. Many affected children manage to cover up and hide their lack of comprehension through certain behaviors. For example, they impersonate what they observe in other children, or they use internalized empty phrases with which they can respond in various situations when addressed. In addition, misunderstandings that arise during communication are often misinterpreted by communication partners, e.g. as inattentiveness or as a defiance, such as "not-wanting-to-listen" (Schiefele & Berg, 2022). Such misunderstandings can also be misinterpreted as the result of learning deficits or cognitive limitations (ibid).

According to the specific of language in teaching contexts in which it does not only serve as a subject of learning but also as a carrier of the information provided, students with limitations in language comprehension require additional supportive measures and strategies to be able to successfully follow the lessons (Sallat, Hofbauer & Jurlita, 2017; Sallat, Schönauer-Schneider, 2015). The absence of these extra-support can lead to persistent difficulties in language comprehension which contain a significant developmental risk including learning disorders and emotional and social problems (Acosta-Rodríguez, Hernández-Expósito & Ramírez-Santana, 2022; Hachul & Schönauer-Schneider, 2019). There is a significant possibility of lifelong negative consequences on educational success and professional

perspectives (Hagen, Melby-Lervag & Lervag, 2017). Furthermore, social interaction and societal participation can be significantly hindered (Berg & Schiefele, 2021).

2. Current status of research

2.1. Language comprehension

There are few studies that aim to research language comprehension. In particular, this concerns the language comprehension of pupils in inclusive education. A few research studies, such as those by Acosta-Rodriguez, Hernandez-Exposit & Ramirez-Santana (2022), indicate that pupils with a diagnosed developmental language disorder (DLD) performed significantly worse in oral language comprehension than pupils with typical language development. Berg & Schiefele (2021) also point to a high prevalence of difficulties in language comprehension in grades 1 and 2 at special schools with a focus on language support. Around 60% of these pupils showed limitations in word, sentence and text comprehension (ibid.).

However, language comprehension disorders do not only affect children with a circumscribed developmental disorder of speech and language, i.e. children who are taught in Germany under the special educational focus on language. In another research study, Mayer (2021) revealed that a large proportion of pupils in the special educational focus on learning and emotional-social development have below-average performance in word and sentence comprehension.

Furthermore, other learning prerequisites such as multilingualism and the use of a second language (L2) as the language of instruction and learning could pose potential risk factors for language comprehension difficulties (ibid.). Based on this data, it can be assumed that similar limitations exist among a significant number of pupils in inclusive schools. Research studies with a focus on the extent of language comprehension in these schools are currently lacking.

Similarly, there is a lack of research studies in the area of effective support for pupils with developmental language disorders in inclusion (Mahlau, 2015). Nelson et al. (1996) state that not only children with, but also children without DLD benefit from the use of modeling techniques by the teacher, since in the survey the (linguistic) target structure was captured equally well (quoted from Kurtz & Mahlau, 2022). Thus, these findings provide some important clues for the development of professionalization measures for teacher language that can benefit all learners in inclusive classroom contexts. These need to be supplemented by studies that focus on language comprehension.

2.2. Teacher language

Teacher language is a constantly available tool for language-sensitive and language-supportive lesson design (Jungmann, Miosga & Neumann, 2021). In heterogeneous learning groups, it offers enormous potential for conducting classroom discussions with a high degree of differentiated support (ibid.) It is therefore all the more surprising that teacher language plays a rather subordinate role in the qualification of regular school teachers in Germany and is mostly aimed at methodically and didactically shaping certain classroom events (ibid.). There is still little practical experience to professionalize one's own teaching language (Eiberger & Hildebrandt, 2013).

In the federal state of North Rhine-Westphalia, teaching language is neither part of the first (academic) nor the second (practical teacher training) phase for primary school teachers. However, regular school teachers must ensure inclusive education (IE) for all pupils at the latest since the UN Convention on the Rights of Persons with Disabilities came into force in 2009. According to the Conference of Ministers of Education and Cultural Affairs (KMK) in 2019, the teaching of concepts of language education and language support should ideally be part of all phases of teacher training. As a logical consequence, this includes appropriate teacher language training to promote language comprehension in order to establish a basis for educational language in the first place. However, this has not yet taken place, nor has it been adapted to the circumstances of IE for all pupils.

A survey by Theisel (2015) revealed that of n=411 regular school teachers compared to n=290 special education teachers, primary school teachers used significantly fewer language-supporting behaviors in the classroom than special education teachers. A pilot study comparing the language used by primary and special school teachers by Ruppert & Schönauer-Schneider (2008) indicates similar results. In contrast, special needs teachers with a focus on language show a high level of professionalism in shaping their own teaching language to promote language development (Berg & Schiefele 2023; Schiefele & Berg, 2022). It therefore seems sensible to use certain training content from special needs education in the area of language support for the professionalization of teacher language in inclusive educational contexts.

2.3. Derivations

In inclusive classrooms, children with heterogeneous learning requirements and a wide variety of language biographies are seated. Based on the studies presented, it is reasonable to assume that a number of pupils in regular schools have language comprehension difficulties. At the same time, it has been delineated that ensuring oral language comprehension is a cross-sectional task for all teachers in inclusive settings. This raises the question of how teachers can effectively accomplish this challenging task. In addition to the general criteria of professional teacher language, such as clear articulation, target group-appropriate vocabulary and syntax as well as overall physical attention, further specific criteria are required in inclusive lessons, such as an appropriate slowed-down speech-rate, the use of modeling techniques, and speech accompanying the action, in order to actually promote language in cases of language development issues (Westdörp, 2010). Furthermore, from a speech therapy perspective, two aspects are relevant for successful teaching in cases of language comprehension limitations: targeted promotion of pupils' language comprehension skills and reduction of linguistic complexity, e.g., through language comprehension-supportive elements of teacher language (including reducing speech rate, prosodic emphasis, visualization). Teachers therefore find themselves in the tension between dismantling learning barriers caused by deficits in language comprehension on the one hand and developing language comprehension skills on the other.

3. The Project PROF-I-SV

3.1. Purpose

The focus of the project *Professionalization of Inclusive Teacher Language to ensure Language Comprehension (PROF-I-SV)* initially lies on reducing language comprehension-related barriers to learning. Based on the assumption that professionally designed teacher language has enormous potential to counteract difficulties in language comprehension, the central aim of this project is to professionalize teachers in inclusive educational contexts for a conscious language comprehension-supportive design of their own teacher language. After implementing and evaluating the measure to reduce comprehension-based learning barriers, the further aim is to integrate support for language comprehension skills into classroom teaching.

The research project commenced in July 2023 and is divided into two sub-projects:

- A. **Survey of the language comprehension** of primary school pupils and, building on this,
- B. Developing and testing a measure to **professionalize inclusive teacher language**.

3.2. Hypotheses and research questions

The aim of Part 1 is to expound which language comprehension skills teachers in inclusive elementary school can assume on average. The hypothesis is that

a large number of pupils who are taught in inclusive classroom settings have language comprehension disorders.

The resulting research question is as follows:

How can word, sentence and oral text comprehension skills of pupils in inclusive primary education be described?

This involves describing the current situation and conducting an inventory from which the support needs of language comprehension skills are analyzed and implications for professionalization are derived.

The second part of the project therefore deals with the development of a professionalization measure for prospective primary school teachers, aimed at increasing the proportion of language comprehension-supportive elements in teacher language. From the hypothesis:

teachers' language has enormous potential to counteract difficulties in language comprehension,

the following research questions can be derived:

1. How must a professionalization measure for teacher language be designed in order to have a lasting effect?

II. What effects does the use of inclusive multimodal teacher language have on pupils' language comprehension skills, and how can these be proven?

III. To what extent can the professionalization of inclusive multimodal teacher language become part of academic qualification and practical teacher training?

As part of the professionalization measure, a multimodal use of teacher language is to be learned and tested. The focus is on applying language comprehension-supportive elements of teacher language, such as the reduction of linguistic complexity, and integrating them into teaching practice. The processual development of teacher language will be accompanied, reflected upon, and evaluated with the help of videographies and documented teaching diaries. Self and peer reflection on their use play a major role in each phase of the professionalization measure. These reflection processes are initiated based on indicators jointly developed in the measure.

3.3. Status quo

The survey of primary school pupils' language comprehension took place over a six-week period from February 7th to March 22nd, 2024. In total, the word, sentence and oral text comprehension skills of n=152 first-graders from five elementary schools in IE were assessed using standardized test procedures. The following tests were used for diagnostics: *Peabody Picture Vocabulary Test (PPVT-4)* → Word comprehension, *Test for Reception of Grammar (TROG-D)* → Sentence comprehension, *Clinical Evaluation of Language Fundamentals (CELF-5)*: Subtest "Understanding Spoken Paragraphs" → Oral text comprehension, *Wechsler Intelligence Scale for Children (WISC-V)*: Subtest "Digit Span" → Working memory, *Mottier Test* → Working memory.

The test protocols are currently being evaluated. The results will be comprehensively presented and discussed in the presentation. In addition, an outlook on the further planning of the project will be provided.

4. Discussion

Ensuring language comprehension of pupils in is a fundamental task for teachers in inclusive teaching contexts. The extent to which the professionalization of teachers' language actually has an effect on pupils' language comprehension skills and, further on pupils' school achievement, must be demonstrated in future research studies. In addition, consideration must be given to how the topic of multimodal use of inclusive teacher language can be most effectively integrated into teacher training.

5. Conclusion

The results of the survey of first-graders' language comprehension provide valuable starting points for the development of a professionalization measure regarding the inclusive design of teachers' language. Particularly when it comes to issues in oral sentence and text comprehension, reducing speech rate and simplifying the syntactic structure of sentences should be integrated into the measure as language-promoting elements and can be evaluated quantitatively. When planning education and training, it is also important to consider what constitutes a "good" and lasting professionalization measure. The four levels (*participant reaction, learning gain, changes in teaching behavior, development of pupils*) and the six characteristics of "good" training (*duration and timing, deepening of didactic and diagnostic knowledge, effectiveness of one's own actions, interweaving of input, testing and reflection, orientation towards characteristics of effective teaching, feedback*) according to Lipowsky & Rzejak (2012) are beneficial for this purpose. Based on this foundation, the professionalization measure *PROF-I-SV* is planned.

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