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EXPLORING THE CONSISTENCY BETWEEN TEACHERS' AND PARENTS' RATINGS OF CHILDREN'S LANGUAGE SKILLS

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Abstract. *Aim: The study investigated the correspondence between parent and teacher assessments of 3 to 6-year-old children's language skills using the Expressive and Receptive Language Scales from the Early Childhood Developmental Screening Toolkit – BAASIK (an acronym in Latvian).*
Material and methods: Ninety-five preschool teachers and 424 parents participated in an online survey assessing the expressive and receptive language skills of children aged 3 to 6 years.
Results: Spearman's correlation analysis revealed statistically significant ($p < .001$) moderate to strong correlations between the ratings of children's language skills by parents and teachers. For the Receptive Language Scales, correlations ranged from $r_S = .43$ to $r_S = .6$, and for the Expressive Language Scales, from $r_S = .54$ to $r_S = .64$.
Conclusions: The study confirmed that parents' and teachers' assessments of children's expressive and receptive language skills are significantly correlated. The BAASIK Expressive and Receptive Language Scales used by both parents and teachers could be effective for early screening, potentially aiding in the prompt identification of language development issues and the subsequent referral to speech and language therapy services.
Keywords: *BAASIK, children, expressive language, parents, receptive language, screening, teachers.*

Introduction

Developmental language disorders are characterized by persistent deficits in acquiring, understanding, producing, or using language that arise during the developmental period, typically in early childhood, and cause significant limitations in the individual's communication abilities (WHO, 2018). Children may be described as having language disorders if they demonstrate significant deficits in learning to talk, understand, or use any aspect of language appropriately, compared to both environmental and norm-referenced standards for children at similar developmental stages (Paul, 2007).

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The current research was part of a larger project aimed at developing a set of screening instruments for assessing early childhood development from 12 months to 6 years. The speech and language part of the screening toolkit (in Latvian*, Bērnu agrīnās attīstības skrīninga instrumentu kopums (BAASIK),* Early Childhood Development Screening Toolkit, Raščevska et al., 2024) included assessments of expressive and receptive language, speech sound development, and fluency. The toolkit also featured scales for evaluating motor coordination, cognition, adaptive behavior, autistic spectrum disorders, attention deficit and hyperactivity, behavioral disorders, emotional development, and early literacy, numeracy, child-parent interaction, and parenting skills.

The study aimed to investigate the agreement between teachers' and parents' reports on 3 to 6-year-old children's expressive and receptive language abilities and the consistency within children's expressive and receptive language abilities as reported in a single type of survey.

Literature review

Assessing language in children, particularly at an early stage, is pivotal as it can identify those at risk of language delays or disorders, enabling timely interventions to help them catch up with their peers and achieve their full potential. Early intervention not only aids in language development but also enhances social and emotional well-being, communication skills, and academic success. Early language assessment aims to pinpoint children's linguistic strengths and challenges to provide tailored support and interventions.

The evaluation of preschool children's language should consider both receptive and expressive components, encompassing tasks that can identify issues related to phonology, syntax, morphology, semantics, word finding, pragmatics, discourse, verbal learning, and memory (Bishop, Snowling, Thompson, & Greenhalgh, 2017; Sattler, 1992). The relationship between expressive and receptive language is integral to linguistic proficiency. As children refine expressive language skills, their receptive language abilities expand in tandem and vice versa (Paul, 2007).

It is recommended that assessments draw from various information sources, such as interviews or questionnaires with parents or teachers, direct observations, and standardized tests or criterion-based assessments (Bishop et al., 2016; Paul, 2007; Sattler, 1992). The input from parents and teachers is vital, acting as the preliminary phase of screening before formal clinical evaluation (Sansavini et al., 2021). Concerns raised by a teacher, parent, or other professionals about a child's communication skills or academic performance often trigger the language assessment process (Hendricks, Adlof, Alonzo, Fox, & Hogan, 2019). The strategy of engaging both parents and teachers in assessments has been foundational in developing various screening tools and rating scales, justified by

the high sensitivity and specificity of such reports compared to direct child assessments (Sansavini et al., 2021; Chung et al., 2010).

Information from caregivers or teachers familiar with the child can uncover nuances of language use not evident in formal assessments, thus providing valuable additional insights (Bishop & McDonald, 2009). Moreover, checklists completed by parents or teachers are time-efficient and cost-effective, as they do not require specialized materials (Cabell, Justice, Zucker, & Kilday, 2009).

However, involving parents in developing or validating assessment tools carries risks. For instance, the Latvian language adaptation of the MacArthur-Bates Communicative Development Inventories for children aged 8-16 and 16–36 months encountered low parental response rates (8%), attributed to outreach challenges and unequal distribution of parental education levels (Urek et al., 2019). Prior research by Vulane et al. indicated that parents' assessments could be overly optimistic or pessimistic, or even superficial, impacting the accuracy of the information provided (Vulane, Taurina, Zirina, 2016).

Observations concerning a child's language development can sometimes cause anxiety among caregivers, yet these concerns often correlate with formal assessment outcomes (Chung et al., 2010; McLeod & Harrison, 2009; McLeod et al., 2017). Concerns expressed by caregivers regarding communication, motor, and social skills have been shown to align with clinical testing results, with significant correlations found between caregivers' worries and direct assessment measures of speech and language (McLeod et al., 2017). McLeod and Harrison (2009) also found a positive association between caregiver ratings of language competence and children's performance on receptive language tests in a large sample of Australian children.

The concordance of parents' and teachers' evaluations of a child's language skills also warrants attention. Kiing et al. (2019) found that preschool teachers' concerns about child development generally matched parents' ratings using the same screening instrument (Parents Evaluation of Development Status, PEDS) (Kiing, Neihart, & Chan, 2019). Similarly, McLeod and Harrison (2009) reported high agreement between parents' and teachers' language development assessments. Children identified by their teachers as being much less competent than others in expressive and receptive language were also identified by their parents as having difficulties in these areas (McLeod & Harrison, 2009). Bishop and Baird (2001) and Massa et al. (2008) noted correlations between parents' and professionals' ratings of children's communicative abilities. However, discrepancies may arise due to the context-dependent nature of communication; children behave differently across settings and observers, contributing to divergent assessments (Bishop & Baird, 2001). Furthermore, a child's level of language development can influence ratings, with parents typically scoring typically developing children higher than teachers do and lower for children with language disorders (Hauerwas & Stone, 2000).

Assessing children's language early is essential for identifying those at risk for language disorders, allowing for interventions that support their overall development. A thorough evaluation includes analyses of both receptive and expressive language through various sources, including caregiver feedback and standardized tests. However, relying on parent and teacher reports can introduce biases, as their perceptions may differ due to varying educational backgrounds or the context in which they observe the child. Studies confirm that while caregiver concerns often align with formal assessment results, there can be discrepancies between parents' and teachers' evaluations, influenced by the child's environment and the level of language development.

Methodology

Participants

The study received approval from the University of Latvia's Ethics Committee of Humanities and Social Sciences Research (Approval No. 71-46/20).

Participants were recruited through a process that targeted *preschool education teachers* based on their willingness to participate. Details about the study were circulated via kindergartens and local educational authorities, prompting teachers to volunteer. Ninety-five preschool teachers from across all Latvian administrative regions (Kurzeme, Zemgale, Vidzeme, Latgale, Riga) submitted applications, all of which were accepted for the study. These teachers were provided with comprehensive instructions for completing an online survey. They were asked to select five children whom they knew well to assess for expressive and receptive language skills.

The survey encompassed 424 children spanning various age groups: 3 years (n = 61), 4 years (n = 85), 5 years (n = 108), and 6 years (n = 170), with a male-to-female ratio of 1.2:1. A majority (81%) of the children were from two-parent families, and 75% had one or more siblings. Over 80% had been enrolled in preschool programs by age three.

Subsequently, teachers engaged the *parents* of the selected children, briefed them on the project's goals, and invited them to fill out the same online survey. The parent survey was completed by 424 individuals, predominantly mothers, for an equal number of children. These families were characterized by parental age (mean age for mothers: M = 34.3 years, SD = 5.6; fathers: M = 36.6 years, SD = 6.2), educational level (53.2% of fathers held a secondary or college degree; 57.3% of mothers had obtained a college degree or higher), and average family income (high: 44.8%, middle: 43.6%, low: 6.3%).

Instruments

The BAASIK Expressive and Receptive Language Scales (Raščevska et al., 2024) included items investigating phonology, syntax, morphology, semantics, and pragmatics skills. These items were formulated as questions or declarative statements. For instance, "Does the child use short sentences in communication (at least three words, sentence constructions may be grammatically incorrect)?" or "The child can name the words with the opposite meaning (e.g., "big – small," "warm-cold," "day-night") (Expressive Language Scale). "Does the child understand the words "big" and "small"? or "The child understands complex grammatic constructions such as Janis is older than Andris, which of the boys is younger?" (Receptive Language Scale). The scale items were designed primarily based on developmental milestones. Each scale contained seven items. While the item sets were consistent across survey forms, they varied by age group, with approximately 20% of the items differing between adjacent age groups. The scales demonstrated high reliability, with Cronbach's alpha values ranging from .89 to .95 across age groups and forms; these metrics are elaborated upon in the results section. Both parents and preschool teachers were presented with the scales through an online platform.

Procedure

Before the study, all preschool teachers were trained in the administration of the BAASIK. Both parents and teachers were instructed to evaluate the frequency of the child's displayed language skills as outlined in the scale items. The response options given to the respondents were: "always," "often," "rarely," or "never." Respondents were requested to select the answer "always" if the child consistently exhibited the skill in question or if the statement strongly resonated with their observations. The choices "often" or "rarely" were appropriate for skills that were observed but not consistently demonstrated. The option "never" was reserved for instances where the child did not display the skill at all. Additionally, if a respondent was uncertain, they were advised to select the option "do not know." Regarding scoring, "always" was allocated 4 points, "do not know" was scored as zero, and the other options were assigned scores from 1 to 3 points accordingly.

Data was analyzed using the Statistical Package for the Social Sciences (SPSS) version 22.

Results

The internal consistency of the BAASIK Expressive and Receptive Language Scales, tailored to each age group and featuring seven items each, was confirmed using Cronbach's alpha coefficient. For the Receptive Language scale, alphas ranged from .89 to .94 for teachers and from .90 to .93 for parents. For the

Expressive Language scale, they ranged from .94 to .95 for teachers and from .91 to .95 for parents.

Table 1. ***Statistical indicators of the Expressive and Receptive Language Scales obtained from the BAASIK Parents' survey*** *(made by authors)*

	Receptive Language Scale				Expressive Language Scale			
Statistical indicator	3 years	4 years	5 years	6 years	3 years	4 years	5 years	6 years
N	57	82	108	169	61	85	108	170
Scale mean (*M*)	22.63	20.62	23.07	24.11	22.34	20.66	22.81	24.14
Standard deviation (*SD*)	4.82	5.72	5.24	5.14	6.49	6.61	5.21	4.64
Median (*Me*)	24.00	22.00	25.00	26.00	25.00	23.00	25.00	26.00
Minimum value	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Maximum value	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00
20th percentile	19.60	15.60	19.80	21.00	17.00	13.20	19.00	22.00
10th percentile	16.60	12.30	15.80	16.00	9.40	9.00	14.90	16.10
5th percentile	**9.80**	**9.15**	**10.45**	**12.50**	**7.10**	**7.30**	**11.35**	**15.00**
Skewness statistic	-1.50	-0.59	-1.31	-1.61	-1.22	-0.81	-1.31	-1.68
Std. error	.32	.27	.23	.19	.31	.26	.23	.19
Kurtosis statistic	2.47	-0.55	1.24	2.10	0.39	-0.61	1.20	2.58
Std. error	.62	.53	.46	.37	.60	.52	.46	.37
The average value of the scale items	**3.23**	**2.95**	**3.30**	**3.44**	**3.19**	**2.95**	**3.26**	**3.45**
20th percentile of the average value of the scale item	2.80	2.23	2.83	3.00	2.43	**1.89**	2.71	3.14
10th percentile of the average value of the scale item	2.37	**1.76**	2.26	2.29	**1.34**	**1.29**	2.13	2.30
5th percentile of the average value of the scale item	**1.40**	**1.31**	**1.49**	**1.79**	**1.01**	**1.04**	**1.62**	**2.14**

Average item scores for the Receptive Language scale from the parents' surveys ranged between 2.95 and 3.44, and for the Expressive Language scale, between 2.95 and 3.45 (Table 1). However, these average scores cannot be directly compared across age groups due to slight content variations between item sets. A risk for a language development disorder was determined when a child's total score on the expressive or receptive language scale was at or below the 5th percentile, or when the average value of the scale items equated to the 5th percentile, indicative of the child "rarely" or "never" demonstrating the assessed language skills. According to parent surveys, the risk threshold for receptive language disorders in children aged 3 to 6 corresponded to the 5th percentile

values of 1.40, 1.31, 1.49, and 1.79, respectively. The 5th percentile risk scores for expressive language disorders were 1.01, 1.04, 1.62, and 2.14 (Table 1). Notably, more than five percent of children fell below the defined criteria for sufficient language development; for instance, the 10th percentile for receptive language at age 4 was 1.76, and for expressive language, the 10th percentile at age 3 was 1.34, and the 20th percentile at age 4 was 1.89. These scores indicate that certain expressive or receptive language skills were manifested only "rarely" or not at all ("never"). The figures suggest the unique characteristics of each age group sample and a relatively higher difficulty level of the individual items for the given ages.

Table 2 ***Statistical indicators of the Expressive and Receptive Language Scales obtained from the BAASIK Teachers' survey and paired sample statistics for parents' and teachers' rating scales*** *(made by authors)*

	Receptive Language Scale				Expressive Language Scale			
Statistical indicator	3 years	4 years	5 years	6 years	3 years	4 years	5 years	6 years
N	60	79	106	164	61	83	107	164
Scale mean (*M*)	18.60	18.19	20.89	21.98	19.97	18.78	20.09	22.50
Standard deviation (*SD*)	5.55	6.96	5.96	5.74	7.06	7.28	6.57	5.88
Median (*Me*)	19.00	21.00	23.00	24.00	22.00	22.00	21.00	25.00
Minimum value	8.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Maximum value	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00
20th percentile	13.00	10.00	14.00	17.00	11.40	9.60	14.00	18.00
10th percentile	10.10	8.00	11.00	13.50	7.00	7.00	9.00	12.00
5th percentile	9.00	8.00	8.35	9.25	7.00	7.00	8.00	8.25
Skewness statistic	-0.21	-0.31	-0.87	-0.95	-0.73	-0.55	-0.58	-1.21
Std. error	.31	.27	.23	.19	.31	.26	.23	.19
Kurtosis statistic	-1.07	-1.41	-0.38	0.02	-0.80	-1.22	-0.88	0.49
Std. error	.61	.53	.47	.38	.60	.52	.46	.38
The average value of the scale items	**2.66**	**2.60**	**2.98**	**3.14**	**2.85**	**2.68**	**2.87**	**3.21**
20th percentile of the average value of the scale item	**1.86**	**1.43**	2.00	2.43	**1.63**	**1.37**	2.00	2.57
10th percentile of the average value of the scale item	**1.44**	**1.14**	**1.57**	**1.93**	**1.00**	**1.00**	**1.29**	**1.71**
5th percentile of the average value of the scale item	**1.29**	**1.14**	**1.19**	**1.32**	**1.00**	**1.00**	**1.14**	**1.18**
Paired samples t-test *p*	4.87 < .001	3.21 < .002	3.82 < .001	5.34 < .001	3.22 < .002	3.75 < .001	4.87 < .001	3.77 < .001

The analysis of teachers' surveys showed that the average values for the Receptive Language scale items varied across age groups from 2.60 to 3.14, and for the Expressive Language scale, from 2.68 to 3.21 (Table 2). The survey results indicated a developmental risk for receptive language in three-year-old children at the 20th percentile with a score of 1.86, meeting the "never" or "rarely" criterion, with corresponding scores for four-year-olds at 1.44 (20th percentile), five-year-olds at 1.57 (10th percentile), and six-year-olds at 1.93 (10th percentile).

Three- and four-year-old children who demonstrate an average Expressive Language scale item score of 1.00 at the 5th and 10th percentiles attained scores of only 1.63 and 1.37, respectively, at the 20th percentile. Five-year-olds exhibited developmental risk at scores of 1.29 (10th percentile) and 1.14 (5th percentile), while for six-year-olds, the corresponding risk scores were 1.71 (10th percentile) and 1.18 (5th percentile).

A paired t-test was used to compare the mean values of the Receptive Language and Expressive Language scales from the Parents' and Teachers' surveys. The comparison revealed that parents' average scores across all age groups were statistically significantly higher than those given by teachers ($p < .002$) (Table 2).

Spearman's rank correlation coefficient was employed to assess the relationship between parents' and teachers' ratings of children's language skills. Statistically significant ($p < .001$) moderate to strong correlations were found between parents and teachers ratings of children receptive language ($r_{S\_3y} = .43$, $p = .002$; $r_{S\_4y} = .61$; $r_{S\_5y} = .53$; $r_{S\_6y} = .51$) and expressive language ($r_{S\_3y} = .60$; $r_{S\_4y} = .64$; $r_{S\_5y} = .59$; $r_{S\_6y} = .54$).

A moderate positive correlation was found between the scores given by parents and teachers on the Receptive and Expressive Language scale for 3-year-old children. For children aged 4 to 6, there were strong correlations between the receptive and expressive language scores provided by both parents and teachers (Figure 1). All of these correlations were statistically significant ($p < .001$).

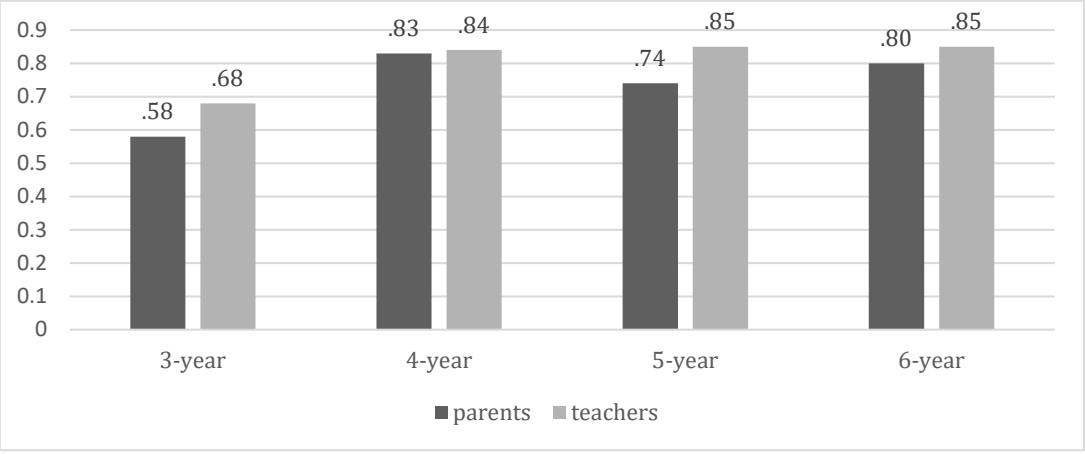

Figure 1 ***Spearman's correlations between scores of Expressive and Receptive Language Scales in Parents' and Teachers' survey forms for children in 3 to 6 years old groups*** *(made by authors)*

Discussion and conclusions

A high Cronbach's alpha for the BAASIK Expressive and Receptive Language Scales across all age groups indicates strong internal consistency, suggesting that these scales provide reliable measurements with little variance due to measurement error (Pring, 2005).

In this study, both preschool teachers and parents evaluated children's language skills using the same items. Results showed that parents consistently rated their children's expressive and receptive language skills higher than teachers, particularly in 3- and 5-year-old children, with these differences being statistically significant. This variation in ratings between parents and teachers may be attributed to their differing experiences; teachers compare a child's language proficiency against a broad range of peers, whereas parents might not have such extensive comparative opportunities and may overestimate their children's abilities (Hauerwas & Stone, 2000; Vulane, Taurina, Zirina, 2016).

Correlation analyses revealed moderate agreement between teachers' and parents' ratings for children's receptive and expressive language skills, supporting the validity of the ratings. However, environmental factors, such as the distinct home and kindergarten settings, might explain why the correlations are not stronger. Furthermore, parents' and teachers' interpretations and potential biases may affect the agreement (Bishop & McDonalds, 2009).

The BAASIK scales' items were developed based on developmental milestones, with scores ranging from 1 to 4 points. The use of a percentile scale to identify developmental risks resulted in considerable heterogeneity in the 5th percentile values across different scales, indicating that skills at this percentile were either not mastered or "rarely" manifested. The difficulty indices for some items also showed low average levels at the 20th and 10th percentiles, suggesting that creating milestone-based items with a specific average difficulty range is challenging. Further discussion on the appropriateness of these items for children's developmental stages in contemporary society is warranted.

The study found that correlations for the Expressive Language Scale were higher than those for the Receptive Language Scale in 3-year-old children, likely due to the more observable nature of expressive language skills. This aligns with McLeod et al. (2017), who found stronger correlations for expressive than receptive language. The study also demonstrated that the associations between receptive and expressive language scores strengthen with children's age, validating the relationship between parents' and teachers' ratings and their predictive value (Sattler, 1992).

Hence, parents' questionnaires could be valuable for screening and early identification of language development issues, facilitating timely intervention. Similarly, a quick screening tool for preschool teachers can effectively monitor language development.

Nonetheless, this study has limitations, including a non-random sample and potential participation bias due to the online survey format. Future papers will continue to analyze BAASIK data.

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