

28 December 2023

Gaetano Domenici
In ricordo di Valeria Biasci 11
(*In Memory of Valeria Biasci*)

Gaetano Domenici
Editoriale / *Editorial*
Istruzione e cultura come educazione alla «pace positiva» 17
(*Education and Culture as Educating for a «Positive Peace»*)

STUDI E CONTRIBUTI DI RICERCA

STUDIES AND RESEARCH CONTRIBUTIONS

Muhamad Taufik Hidayat - Wahid Hasim
Putting It off until Later: A Survey-Based Study 27
on Academic Procrastination among Undergraduate Students
(*Rimandarlo a dopo: uno studio basato su un'indagine
sulla procrastinazione accademica tra gli studenti universitari*)

Federico Batini - Irene Dora Maria Scierri - Francesco Vittori
Bullismo femminile: presentazione della ricerca quantitativa 39
di un'indagine nazionale mixed-method
(*Female Bullying: Presentation of the Quantitative Research of a National
Mixed-Method Investigation*)

- Maryam Safara - Hamid Reza Koohestani - Mojtaba Salmabadi
The Role of Social Intelligence and Resilience in Explaining Students' Distress Tolerance: A Study during Covid-19 Pandemic 61
(Il ruolo dell'intelligenza sociale e della resilienza nello spiegare la tolleranza al disagio degli studenti: uno studio durante la pandemia di Covid-19)
- Antonio Calvani - Antonio Marzano - Lorena Montesano
Marta Pellegrini - Amalia Lavinia Rizzo - Marianna Traversetti
Giuliano Vivanet
Improving Reading Comprehension and Summarising Skills in Primary School: A Quasi-Experimental Study 81
(Migliorare la comprensione del testo e le capacità di sintesi nella scuola primaria: uno studio quasi-sperimentale)
- Francesco M. Melchiori - Sara Martucci - Calogero Lo Destro
Guido Benvenuto
Hate Speech Recognition: The Role of Empathy and Awareness of Social Media Influence 101
(Riconoscimento dell'hate speech: il ruolo dell'empatia e della consapevolezza dell'influenza dei social media)
- Stefano Scippo
Costruzione e validazione di uno strumento per misurare le pratiche educative Montessori nella scuola primaria italiana 117
(Construction and Validation of a Tool to Measure Montessori Educational Practices in the Italian Primary School)
- Pietro Lucisano - Emanuela Botta
«Io e la scuola»: percezione di ansia e benessere degli studenti in ambiente scolastico 137
(«Me and the School»: Student Perception of Anxiety and Well-Being in the School Context)
- Mujib Ubaidillah - Hartono - Putut Marwoto - Wiyanto
Bambang Subali
How to Improve Critical Thinking in Physics Learning? A Systematic Literature Review 161
(Come migliorare il pensiero critico nell'apprendimento della fisica? Una revisione sistematica della letteratura)
-

NOTE DI RICERCA

RESEARCH NOTES

<i>Natalia Nieblas-Soto - Blanca Fraijo-Sing - César Tapia Fonllem Melanie Moreno-Barahona</i>	
Assessment and Integrated Model of Language Components: Implications for Basic and Special Education Services in Mexico	191
<i>(Valutazione e modello integrato di componenti del linguaggio: implicazioni per i servizi di educazione basica e speciale in Messico)</i>	
<i>Anna Maria Ciraci - Maria Vittoria Isidori Claudio Massimo Cortellesi</i>	
Valutare e certificare le competenze degli studenti nell'assolvimento dell'obbligo di istruzione. Un'indagine empirica nella scuola secondaria della Regione Abruzzo	207
<i>(Assess and Certify Students' Skills in Fulfilling the Compulsory Education. An Empirical Survey in Secondary School of the Abruzzo Region)</i>	
Author Guidelines	225

Assessment and Integrated Model of Language Components: Implications for Basic and Special Education Services in Mexico

Natalia Nieblas-Soto - Blanca Fraijo-Sing
César Tapia Fonllem - Melanie Moreno-Barahona

Universidad de Sonora, Programs of Master and Doctorate in Psychology (Hermosillo, Mexico)

DOI: <https://doi.org/10.7358/ecps-2023-028-nieb>

natalia.nieblassoto@gmail.com
<https://orcid.org/0000-0001-6417-0998>
blanca.fraijo@unison.mx
<https://orcid.org/0000-0001-6794-387X>
cesar.tapia@unison.mx
<https://orcid.org/0000-0002-5668-8540>
melaniemorenob@gmail.com
<https://orcid.org/0000-0001-7082-4345>

VALUTAZIONE E MODELLO INTEGRATO DI COMPONENTI
DEL LINGUAGGIO: IMPLICAZIONI PER I SERVIZI
DI EDUCAZIONE BASICA E SPECIALE IN MESSICO

ABSTRACT

Language development is important in a person's life because it is the basis for some learning processes; failure to achieve optimal levels of language development can result in problems related to reading. The present study had two main objectives: first, to assess the communication skills corresponding to the different language components, as well as their relationship with the literacy learning process in children; and second, to explain the relationship between oral communication skills, letter knowledge and reading ability. To achieve this goal, we examined reading ability, letter knowledge, and oral commu-

nication skills through three different instruments. We evaluated total of 121 children enrolled in three different elementary in Hermosillo, Mexico schools were evaluated. Among the findings, 54.5% of the participants scored less than one standard deviation below the mean in language development, indicating a possible delay in the reading skills. The results of our model also confirmed that reading ability is predicted by letter knowledge and oral communication skills. The model suggests that letter knowledge has an indirect effect on the relationship between oral communication skills and reading ability.

Keywords: Assessment; Language components; Oral language skills; Reading abilities; Reading training.

1. INTRODUCTION

Learning to read is one of the most important objectives to be achieved in elementary school, as it is considered the foundation for later learning and education (Narro Robles & Moctezuma Navarro, 2012). Moreover, through reading, individuals can acquire new knowledge that contributes to their personal development and participation in society. However, the inability to read, and therefore to comprehend ideas through reading, is a critical limitation to individual and social development across the lifespan (Rodriguez & Gallardo, 2007).

Various world organizations (e.g., UNESCO, UNICEF) have reported on known concerns and revealed alarming figures regarding literacy levels and the acquisition of reading skills among children and adolescents. Undoubtedly, today's global education is facing significant challenges, which are reflected in the inability of children and adolescents to achieve minimum competencies in reading and literacy. In recent years, UNESCO (2017) found that more than 617 million children and adolescents are not learning adequately; additionally, it found that only four out of ten children learn to read proficiently.

In Mexico, the results reported by the National Plan for the Evaluation of Learning show that 49.5% of primary school students in sixth grade obtained insufficient results in language and communication, and 33.2% obtained results corresponding to the minimum acceptable level. Therefore, about 80% of sixth graders present problems related to reading, which is a limiting factor in their ability to continue learning. Similarly, regarding the PISA test evaluation, most Mexican students obtained scores located in the most basic levels of achievement, and only a quarter of them

reached the highest levels of achievement in reading (Márquez Jiménez, 2017).

Recent reports are somewhat disconcerting, as results from UNESCO (2020) showed that 94% of the student population (in more than 190 countries) was affected by the closure of educational institutions due to the Covid-19 pandemic. Low- and middle-income countries, such as Mexico, are expected to experience a greater negative impact than high-income countries. The results of the World Bank estimates suggest that the loss of learning in Mexico could be equivalent to or comparable to a setback of two completed school cycles. The impact on learning is undoubtedly worrying, since a significant proportion of students in Mexico did not acquire the knowledge and skills that are considered the basis for participation in formal education even before the Covid-19 pandemic (García Dobarganes, n.d.). In terms of reading skills, it is estimated that more than 100 million children will fall below the minimum reading level. Specifically in the Latin American context, where only 42% of children in the last year of secondary school were able to read without difficulty in 2020 (United Nations, 2021).

There is a complex list of factors that may influence learning processes (Kutsyruba *et al.*, 2015; Tapia-Fonllem *et al.*, 2020). Therefore, determining the factors and their relationships is a fundamental task for solving precise educational problems. Students learning and achievement are influenced by educational, psychological, and social factors (Bove *et al.*, 2016). In particular, numerous developmental cognitive and language skills, such as visual analogical reasoning and letter knowledge, have been identified as predictors of reading achievement delays (Holopainen *et al.*, 2001).

Children's language skills are essential at various milestones in the development of learning to read. According to Whitehurst and Lonigan (1998), knowledge of vocabulary, syntax, narrative structure, metalinguistic aspects of language, and letter knowledge are foundational skills that influence the process of learning to read. Similarly, Kendeou *et al.* (2009) and Lepola *et al.* (2016) mentioned that decoding skills such as letter knowledge and oral communication skills are the two basic components to achieve reading comprehension and concluded that oral language skills predict the growth of decoding reading skills over the years. In the same vein, Muter *et al.* (2004) argued that learning to read cannot be achieved until oral language skills are sufficiently developed and concluded that phonological language skills are related to word recognition, while vocabulary and grammar skills are significant predictors of reading comprehension. The importance of oral language skills persists throughout the years, not just in the early years of learning to read.

As noted above, letter knowledge is an essential skill for reading development. Several studies have identified letter knowledge as an important predictor of reading outcomes (e.g., Lonigan *et al.*, 2000; Shatschneider *et al.*, 2004; Snowling and Hulme, 2012). Leppänen *et al.* (2008) also concluded that the best predictor of reading comprehension and fluency was letter knowledge. More importantly, they suggested that letter knowledge is an important predictor not only in the early years of education, but also for the later development of fluency and comprehension.

Several authors have concluded that oral communication skills and letter knowledge are significant predictors of reading ability. In addition, some studies have examined the relationship between these variables, identifying letter knowledge as a mediator in the relationships between important predictors of reading development and reading ability (e.g., Lonigan *et al.*, 2000; Blaiklock, 2004).

2. METHODOLOGY

2.1. *Research objective*

The main objective of this study was to assess the communication skills corresponding to the different language components such as content, use and form, as well as their relationship with the literacy learning process in children in first grade of elementary school and to present a model explaining the relationship between oral communication skills, letter knowledge and reading ability in children enrolled in first grade of elementary school.

2.2. *Participants*

A total of 121 Spanish-speaking children attending three different public elementary schools in Hermosillo, Sonora, Mexico participated in the present study. The total sample consisted of 61 girls (50.4%) and 60 boys (49.6%). The ages of the participants ranged from five to eight years, with one participant being five years old (.8%), 95 participants being six years old (78.5%), 24 participants being seven years old (19.8%), and one participant being eight years old (.8%). The mean age of the sample was six years ($SD = .45$). Students were enrolled in first grade and attended school for approximately five hours per day. According to the Mexican school

system, children must be six years old to enter elementary school. Moreover, it is expected that reading ability consolidate within the first two years because it is considered the foundation for later learning and education.

The elementary schools included in the research belonged to the public educational system and were located in the city center area. These schools are characterized by its academic achievement, easy access, adequate infrastructure for learning, sufficient and accessible school spaces, and large student body.

2.3. Materials and procedure

In order to achieve the study objective, the students were given standardized tests that assessed oral language and reading skills. The children were also given a letter knowledge test. Participants were assessed individually in two different sessions at their schools. The total duration of each session was approximately 30 minutes. The evaluators who scored the students were graduate students in psychology who were trained to administer the assessment. Prior to data collection, the study was approved and authorized by the Secretary of Education and Culture of the State of Sonora (Secretaría de Educación y Cultura del Estado de Sonora). All children and their parents/guardians were asked for their consent to participate in the study and were required to sign informed consent forms.

- Measures of Oral Language Skills. These skills were assessed using the Prueba de Lenguaje Oral Navarra - Revised (PLON-R) developed by Aguinalda *et al.* (2005). The test is composed of 36 items and is divided into three sections corresponding to the three linguistic components. The Form Scale has 11 items, the Content Scale has 15 items, and the Usage Scale has 10 items.
- Measures of Reading Skills. The Exploration of Basic Skills in Reading test (Exploración de Habilidades Básicas en Lectura – SEP, 2018) was used to measure reading skills. The test was developed by the Mexican Secretary of Public Education. This instrument consists of a 101-word text called The Dolphins. Reading is evaluated according to a rubric with eight components: fluency, accuracy, attention to complex words, correct use of voice, confidence, willingness to read, and comprehension. The response options for each component correspond to three scores, with three being the highest and one being the lowest. To assess reading comprehension, the examiner provided three questions.
- Measure of Letter Knowledge. A 20-item test with two scales was designed to assess letter knowledge. The letter identification scale, con-

sisting of 10 items, was composed of either naming, or producing the sound of the presented letter. The Letter Discrimination Scale, also consisting of 10 items, required the child to discriminate a letter by listening to the sound produced by the examiner.

2.4. Data analysis

Univariate statistics and correlation coefficients between variables were calculated using the Statistical Package for Social Sciences (SPSS, v. 21.0). Reliability and internal consistency of the instruments were also measured using Cronbach's alpha. A structural model was tested using the EQS statistical program. First, a measurement model was tested using confirmatory factor analysis. Then, structural equation modeling was performed to establish the relationships between oral language skills and letter knowledge as well as their contribution to reading ability through model fit index interpretation.

3. RESULTS

Table 1 presents the univariate statistics and Cronbach's alpha values of all measures used in the study. According to the Cronbach's alpha values, the reliability coefficients of the different scales range from high to regular (lowest reliability value being equal to $\alpha = .58$). Hence, establishing a good internal consistency and reliability coefficient of the instruments used to assess the variables in this study. Moreover, all correlations between the variables are both statistically significant and adequately correlated (Tab. 2).

Table 1. – Univariate statistics and internal consistency of the scales.

VARIABLE	N	MEAN	SD	MIN	MAX	CRONBACH ALPHA
Form Scale	121	.690	.170	.298	.884	.726
Content Scale	121	.629	.209	.248	.942	.584
Use Scale	121	.605	.219	.281	.843	.606
Letter Identification	121	1.729	.246	1.140	1.942	.720
Letter Discrimination	121	1.707	.254	1.256	1.983	.750
Reading	113	2.230	.137	2.124	2.416	.927

Table 2. – Pearson's correlation coefficients between the different variables.

	FORM	CONTENT	USE	READING	LETTER IDENTIFICATION	LETTER DISCRIMINATION
Form						
Content	.268**					
Use	.422**	.525**				
Reading	.418**	.347**	.371**			
Letter Identification	.321**	.373**	.417**	.608**		
Letter Discrimination	.203*	.221*	.310**	.422**	.463**	

Note: ** p < 0.01; n = 121.

Table 3. – Percentage of correct answers per test.

PERCENTAGE OF CORRECT ANSWERS			
<i>Oral Communication Skills</i>			
Form			
Phonology		55.4%	
Morphology		33.1%	
Syntax		22.3%	
Content			
Middle excluded		40.5%	
Opposites		43.9%	
Categories		45.5%	
Word definition		22.3%	
Use			
Content and form absurd		9.9%	
Metaphor		69.4%	
Arrange and tell		69.4%	
Comprehension and adaptation		37.2%	
<i>Reading Ability</i>			
	3	2	1
Fluency	36.3%	42.5%	21.2%
Precision	43.4%	27.4%	29.2%
Attention to complex words	43.4%	28.3%	28.3%
Voice	53.9%	32%	14.1%
Security and willingness for reading	59.3%	23%	17.7%
Comprehension	43.4%	25.7%	30.9%

The results of the research study indicate that the population studied does not possess the oral communication skills corresponding to their age or education level (*Tab. 3*). The findings corroborate the conclusions of Guevara *et al.* (2007) and Albores-Gallo *et al.* (2011), who point out that the language development of most children in Mexico is below the expected average. Thus, we consider that children are exposed to basic primary education with deficient oral communication skills.

Specifically, it should be noted that more than half of the participants responded correctly in only three of the 11 subtests that make up each language component. The subtests in which most of the children answered correctly were the phonology subtest, which corresponds to the form component; and the metaphor and ordering and retelling subtests, which correspond to the use component. Regarding the subtests that make up the content component, more than half of the participants answered incorrectly.

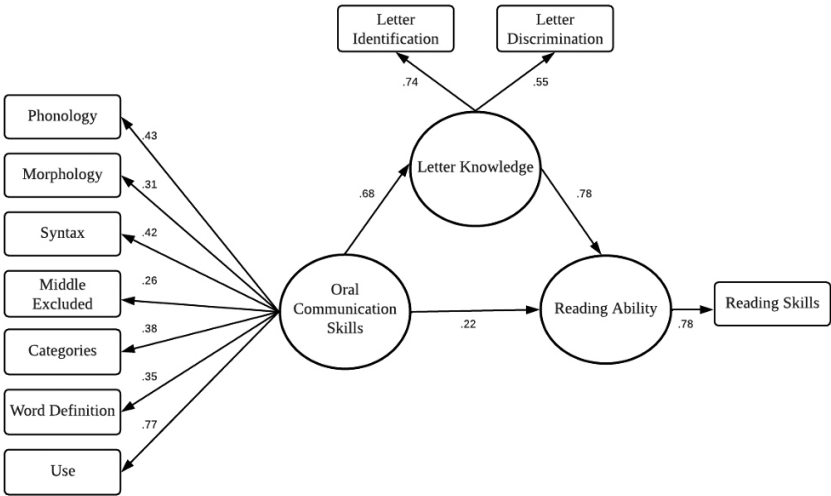


Figure 1. – Structural equation model of the relationship between oral language skills, letter knowledge, and reading skills.

Figure 1 depicts the fitted model that illustrates the variables: oral language skills, letter knowledge, and reading skills. To evaluate the goodness of fit of the model, we employ chi-square (χ^2) statistic, comparative fit index (CFI), normed fit index (NFI), non-normed fit index (NNFI), and the root-mean-square error of approximation (RMSEA). A non-significant

value of chi-square indicates good fit. The value of chi-square obtained for the model was non-significant indicating that our model has a proper statistical adjustment. According to Hu and Bentler (1999), values for CFI, NFI, & NNFI equal or superior to .95 indicate a good model fit and values above .90 suggest an acceptable fit. As for the RMSEA index, values below .05 indicate a good fit. The obtained statistics indicated that the model yielded a good fit to the data and provided an adequate factorial structure ($\chi^2 = 16.77$, 29 df; $p = .96$; NFI = .92; NNFI = 1.00; CFI = 1.00; RMSEA = .00). Coupled with this result, the obtained model also depicts an effect on the Reading Abilities variable, showing that the various aspects of our model explain a significant portion of the variance Reading Abilities ($R^2 = .78$).

Moreover, it proves necessary to emphasize the relationship between oral communication skills and reading. It is now recognized that language development plays a fundamental role in learning to read (Whitehurst & Lonigan, 1998; Muter *et al.*, 2004; Kendeou *et al.*, 2009; Owens, 2012; Lepola *et al.*, 2016; Gutiérrez Fresneda & Díez Mediavilla, 2018). Thus, it is suggested that deficits in language development will be reflected in learning to read. Similar to existing evidence, the results showed significant relationships between different language components and reading. Likewise, significant relationships were found between the language components and the different aspects of reading ability, except for the relationship between the use component and voice intention when reading.

As well as oral communication skills, letter knowledge is indispensable for learning to read (Whitehurst & Lonigan, 1998). Our results show significant relationships between letter identification and discrimination and reading. Likewise, there is a significant relationship between letter knowledge and the different language components. The relationships found between oral language components and letter knowledge corroborate the assumptions of Kendeou *et al.* (2009), Lepola *et al.* (2016) and Whitehurst and Lonigan (1998) on the fundamental aspects for learning reading skills.

4. DISCUSSION

The present study had two main objectives: to assess the communication skills corresponding to the different language components in children in the first grade of elementary school and to develop an explanatory model of the relationship between oral communication skills, letter knowledge and

reading ability. To achieve this goal, we assessed reading ability, letter knowledge, and oral communication skills using three different instruments.

The results showed a direct effect of oral communication skills on reading ability, oral communication skills on letter knowledge, and letter knowledge on reading ability. In addition, the correlations between all the variables of the study were strong and significant. Like Owens (2012), Gutiérrez Fresneda and Díez Mediavilla (2018), and Muter *et al.* (2004), we can conclude that reading is a skill based on oral communication. The relationship between oral communication skills and letter knowledge confirms the findings of Kendeou *et al.* (2009) and Lepola *et al.* (2016).

Furthermore, our modeling also confirmed that reading ability is predicted by letter knowledge and oral communication skills as proposed by Whitehurst and Lonigan (1998). The model found that letter knowledge has an indirect effect on the relationship between oral communication skills and reading ability. In other words, letter knowledge explains the relationship between oral communication skills as a predictor of reading ability.

Our results have important theoretical and practical implications. In terms of the theoretical framework, we can imply that reading ability depends not only on letter knowledge but also on oral language skills. Coupled with this idea, from a practical perspective, our findings have important implications for the assessment and intervention of the global reading crisis in schools. As suggested by Leppänen *et al.* (2008), the assessment of letter knowledge is an important task to identify children at risk of developing reading difficulties.

Our limitations are related to the sample considered for the research study. The sample included was not random given that schools were selected for convenience, and only took into consideration children enrolled in first grade of elementary schools. Therefore, it only portrays limited aspects about children between five and eight years of age in these learning environments. In addition, the sample only included children of a certain region of Mexico. Thus, it does not represent all children that are in the process of learning to read. Future research must expand the sample and vary the sampling methods for establishing conclusive facts for Mexican children.

4.1. *Implications for basic and special education services*

Our findings may also provide a new perspective regarding school consultation in elementary education programs, such as the Unit of Support Services for Regular Education (USAER), Multi-Care Center for Special

Education (CAM) and other special education services in Mexico. Here we may observe several of the practical implications of our methods and results, as we may see some of the instruments applied could be a promising alternative to traditional methods of screening and testing for struggling readers. Currently, Mexico holds a special education strategy that involves the integration of children with special needs into the regular classroom. Despite its success in the implementation, different studies have revealed different concerns and issues related to the program's evaluation methods, lack of personnel, and overall need for some fundamental changes in special education practices and beliefs (Fletcher *et al.*, 2003; García-Cedillo, Romero-Contreras, & Fletcher, 2014). Therapists, school psychologists, and other educational psychology service providers may benefit from these methods as a way of identifying educational opportunities for classrooms or individual student cases in need of consultation and intervention. Given that altering traditional formulas to identify students as learning disabled or with persistent difficulties, may afford us new ways of providing additional support in a manner that proves to be scientifically based and guiding the adequate practical means of providing correct diagnosis and effective instruction in the provision of support to struggling readers or in the betterment of reading abilities (Butera & Martínez, 2014).

Regarding school intervention, the mediating role that letter knowledge plays in the relationship between oral language skills and reading ability confirms the importance of these factors in reading success and provide a resource for early education programs. The findings predict that improvement and development of oral communication skills and letter knowledge in children learning to read might lead to success. In that sense, our findings offer an important resource for the design of early intervention programs and teaching practices for learning to read (e.g., Kendeou *et al.*, 2009). According to Kennedy, Birman and Demaline (1986), it is necessary that children acquired skills for reading before third grade because it is unlikely to acquire them later, so these programs represent a foundation for basic education. Our model suggests that early programs not only must expose children to activities that promote the improvement of communication skills, but also must include the mentoring of letter identification and discrimination. However, future research is needed to explore early programs that include intervention of oral communication skills and letter knowledge to acknowledge the improvement of reading ability.

Author contributions

NN-S contributed with the conceptualization and design of this study, acquisition of data, ran formal analysis, and organized databases. BF-S and CT-F contributed by supervising this study, its methodological tasks, and data interpretation. CT-F made substantial contributions by editing and revising the manuscript critically for important intellectual content. MM-B and NN-S provided the writing of the original draft. All authors contributed to manuscript revision and read and approved the submitted version.

Conflict of interest statement

The studies involving human participants were reviewed and approved by the Committee of Ethics in Research (Comité de Ética en Investigación) of the University of Sonora. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

REFERENCES

- Aguinada, G., Armentia, M. L., Fraile, A., Olangua, P., & Uriz, N. (2005). *PLON-R: Prueba de Lenguaje Oral de Navarra Revisada*. Madrid: TEA Ediciones.
- Albores-Gallo, L., Lara-Muñoz, M. del C., Melchor Contreras, D. del C., & Angeles Albores, D. (2011). Vocabulario expresivo en una muestra de niños preescolares con trastornos psiquiátricos y un grupo con desarrollo típico. *Salud Mental*, 24(4), 315-322.
- Blaiklock, K. E. (2004). The importance of letter knowledge in the relationship between phonological awareness and reading. *Journal of Research in Reading*, 27(1), 36-57.
- Bove, G., Marella, D., & Vitale, V. (2016). Influences of school climate and teacher's behavior on student's competencies in mathematics and the territorial gap between Italian macro-areas in PISA 2012. *Journal of Educational, Cultural and Psychological Studies (ECPS)*, 13, 63-96.
- Butera, G., & Martínez, R. S. (2014). Multidisciplinary collaboration to support struggling readers: Special issue introduction. *Journal of Educational and Psychological Consultation*, 24(2), 75-80.
- Fletcher, T., Dejud, C., Klingler, C., & Mariscal, I. L. (2003). The changing paradigm of special education in Mexico: Voices from the field. *Bilingual Research Journal*, 27(3), 409-430.
- García-Cedillo, I., Romero-Contreras, S., & Fletcher, T. V. (2014). Special education today in Mexico. In *Special education international perspectives: Practices across the globe (Advances in special education, Vol. 28)* (pp. 61-89).

- Leeds: Emerald Group Publishing Limited. doi: <https://doi.org/10.1108/S0270-401320140000028009>.
- García Dobarganes, P. C. (n.d.). *Educación en pandemia. Los riesgos de las clases a distancia*. Instituto Mexicano para la Competitividad, A. C.
- Guevera, Y., García, G., López, A., Delgado, U., & Hermosillo, A. (2007). Habilidades lingüísticas en niños de estrato sociocultural bajo al iniciar la primaria. *Acta Colombiana de Psicología*, 10(2), 9-17.
- Gutiérrez Fresneda, R., & Díez Mediavilla, A. (2018). Conciencia fonológica y desarrollo evolutivo de la escritura en las primeras edades. *Educación XXI*, 21(1), 395-416. doi: 10.5944/educXXI.13256.
- Holopainen, L., Ahonen, T., & Lyytinen, H. (2001). Predicting delay in reading achievement in a highly transparent language. *Journal of Learning Disabilities*, 34(5), 401-413.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. doi: 10.1080/10705519909540118.
- Kendeou, P., White, M. J., van den Broek, P., & Lynch, J. S. (2009). Predicting reading comprehension in early elementary school: The independent contributions of oral language and decoding skills. *Journal of Educational Psychology*, 101(4), 765-778. doi: 10.1037/a0015956.
- Kennedy, M. M., Birman, B. F., & Demaline, R. (1986). *The effectiveness of Chapter 1 services*. Washington, DC: U. S. Department of Education.
- Kutsyruba, B., Klinger, D. A., & Hussain, A. (2015). Relationships among school climate, school safety, and student achievement and well-being: A review of the literature. *Review of Education*, 3, 103-135. doi: 10.1002/rev3.3043.
- Lepola, J., Lynch, J., Kiuru, N., Laakkonen, E., & Niemi, P. (2016). Early oral comprehension, task orientation, and foundational reading skills as predictors of grade 3 reading comprehension. *Reading Research Quarterly*, 51(4), 373-390.
- Leppänen, U., Aunola, K., Niemi, P., & Nurmi, J. E. (2008). Letter knowledge predicts Grade 4 reading fluency and reading comprehension. *Learning and Instruction*, 18, 548-564.
- Lonigan, C. J., Burgess, S. R., & Anthony, J. L. (2000). Development of emergent literacy and early reading skills in preschool children: Evidence from a latent-variable longitudinal study. *Developmental Psychology*, 36(5), 596-613.
- Márquez Jiménez, A. (2017). Sobre lectura, hábito lector y sistema educativo. *Perfiles Educativos*, 39(155), 3-18.
- Muter, V., Hulme, C., Snowling, M. J., & Stevenson, J. (2004). Phonemes, rimes, vocabulary and grammatical skills as foundations of early reading devel-

- opment: Evidence from a longitudinal study. *Developmental Psychology*, 40(5), 665-681. doi: 10.1037/0012-1649.40.5.665.
- Narro Robles, J., & Moctezuma Navarro, D. (2012). Analfabetismo en México. Una deuda social. *Realidad, datos y espacio: Revista internacional de estadística y geografía*, 3(3), 5-17.
- Owens, R. E., Jr. (2012). *Language development: An introduction* (8th ed.). Upper Saddle River, NJ: Pearson Education.
- Rodríguez Gallardo, A. (2007). Definiendo la lectura, el alfabetismo y otros conceptos relacionados. *Investigación Bibliotecológica*, 21(42), 143-175.
- Schatschneider, C., Francis, D. J., Carlson, C. D., Fletcher, J. M., & Foorman, B. R. (2004). Kindergarten prediction of reading skills: A longitudinal comparative analysis. *Journal of Educational Psychology*, 96(2), 265-282.
- Secretaría de Educación Pública (2018). *Exploración de habilidades básicas en lectura, producción de textos escritos y cálculo mental*. México.
- Snowling, M. J., & Hulme, C. (2012). Interventions for children's language and literacy difficulties. *International Journal of Language & Communication Disorders*, 47(1), 27-34.
- Tapia-Fonllem, C., Fraijo-Sing, B., Corral-Verdugo, V., Garza-Terán, G., & Moreno-Barahona, M. (2020). School environments and elementary school children's well-being in northwestern Mexico. *Frontiers in Psychology*, 11, 510. doi: 10.3389/fpsyg.2020.00510.
- United Nations (2021). *COVID-19. El número de niños con dificultades para leer aumentó en cien millones debido al cierre mundial de escuelas*. <https://news.un.org/es/story/2021/03/1490142>
- United Nations Educational, Scientific and Cultural Organization (2017). *Más de la mitad de los niños y adolescentes en el mundo no está aprendiendo*. <https://uis.unesco.org/sites/default/files/documents/fs46-more-than-half-children-not-learning-2017-sp.pdf>
- United Nations Educational, Scientific and Cultural Organization (2020). *UN Secretary-General warns of education catastrophe, pointing to UNESCO estimate of 24 million learners at risk of dropping out*. <https://en.unesco.org/news/secretary-general-warns-education-catastrophe-pointing-unesco-estimate-24-million-learners-0>
- Whitehurst, G. J., & Lonigan, C. J. (1998). Child development and emergent literacy. *Child Development*, 69(3), 848-872.

RIASSUNTO

Lo sviluppo del linguaggio è importante nella vita di una persona perché è alla base di alcuni processi di apprendimento; il mancato raggiungimento di livelli ottimali di sviluppo del linguaggio può comportare problemi legati alla lettura. Il presente studio si prefiggeva due obiettivi principali: in primo luogo, valutare le abilità comunicative corrispondenti alle diverse componenti del linguaggio, nonché la loro relazione con il processo di apprendimento della lettura nei bambini; in secondo luogo, spiegare la relazione tra le abilità comunicative orali, la conoscenza delle lettere e l'abilità di lettura. Per raggiungere questo obiettivo, abbiamo esaminato l'abilità di lettura, la conoscenza delle lettere e le abilità di comunicazione orale attraverso tre diversi strumenti. Abbiamo valutato un totale di 121 bambini iscritti a tre diverse scuole elementari di Hermosillo, in Messico. Tra i risultati, il 54,5% dei partecipanti ha ottenuto un punteggio inferiore a una deviazione standard sotto la media nello sviluppo del linguaggio, indicando un possibile ritardo nelle abilità di lettura. I risultati del nostro modello hanno anche confermato che la capacità di lettura è prevista dalla conoscenza delle lettere e dalle abilità di comunicazione orale. Il modello suggerisce che la conoscenza delle lettere ha un effetto indiretto sulla relazione tra abilità di comunicazione orale e capacità di lettura.

Parole chiave: Abilità di lettura; Abilità di linguaggio orale; Componenti del linguaggio; Preparazione alla lettura; Valutazione.

Copyright (©) 2023 Natalia Nieblas-Soto, Blanca Fraijo-Sing, César Tapia Fonllem, Melanie Moreno-Barahona

Editorial format and graphical layout: copyright (©) LED Edizioni Universitarie



This work is licensed under a Creative Commons

Attribution-NonCommercial-NoDerivatives 4.0 International License.

How to cite this paper: Nieblas-Soto, N., Fraijo-Sing, B., Tapia Fonllem, C., & Moreno-Barahona, M. (2023). Assessment and integrated model of language components: Implications for basic and special education services in Mexico [Valutazione e modello integrato di componenti del linguaggio: implicazioni per i servizi di educazione basica e speciale in Messico]. *Journal of Educational, Cultural and Psychological Studies (ECPS)*, 28, 191-205. <https://doi.org/10.7358/ecps-2023-028-nieb>