

RESEARCH

<http://dx.doi.org/10.15198/seeci.2017.43.1-14>

Received: 10/03/2017 --- **Accepted:** 15/05/2017

A PORTAL OF MAGIC WITH MATHEMATICS. UNDERSTANDING OF TEXTS ***UN PORTAL DE MAGIA CON LA MATEMÁTICA. COMPRENSIÓN DE TEXTOS***

Juana Elizabeth Sánchez Machado¹: Technical University of Ambato. Ecuador

juaniselis@hotmail.com

María Cristina Páez: Technical University of Ambato. Ecuador

mc.paez@uta.edu.ec

Hector Fernando Gómez Alvarado: Technical University of Ambato. Ecuador

hfgomez@uta.edu.ec

Margarita Narváez Ríos: Technical University of Ambato. Ecuador

mm.narvaez@uta.edu.ec

Luis Gozalo Maiza Vayas: Technical University of Ambato. Ecuador

lg.maiza@uta.edu.ec

ABSTRACT

This article aims to point out the influence of reading comprehension in learning mathematics, this being an area where students show higher degree of difficulty, in the first part the importance of reading and access to knowledge was examined, the same that provides greater opportunity for the future, forming free people. It was noted that reading comprehension is treated in the area of language and literature, totally isolated from other subjects or areas of the curriculum, leaving the understanding of scientific texts. The mathematical vocabulary is harder to understand. The development of reading comprehension strategies facilitates student learning in any educational area, this being a tool for independent learning.

KEY WORDS: Reading comprehension - Mathematical learning - Autonomous learning - Language and literature - Comprehension of scientific texts - Educational area - Language skills.

¹**Juana Elizabeth Sánchez Machado**: Degree in education sciences mention basic education by Technical University of Ambato, and bachelor in the specialty of mathematical physicist, has the position of pedagogical assistant in the "Bilingual Particular Institute" A.B.C.

Correo: juaniselis@hotmail.com.

RESUMEN

Este artículo pretende señalar la influencia que tiene la comprensión lectora en el aprendizaje de la matemática, siendo esta un área donde los estudiantes muestran mayor grado de dificultad, en la primera parte se examinó la importancia de la lectura y su acceso al conocimiento, el mismo que brinda mayor oportunidad para el futuro, formando personas libres. Se señaló que la comprensión lectora es tratada en el área de lengua y literatura, totalmente aislada de las otras materias o áreas del currículo, abandonando la comprensión de textos científicos. El vocabulario matemático es más difícil de entender. El desarrollo de estrategias de comprensión lectora facilita el aprendizaje de los estudiantes, en cualquier área educativa, siendo esta una herramienta para el aprendizaje autónomo.

PALABRAS CLAVE: Comprensión lectora - Aprendizaje matemático - Aprendizaje autónomo - Lengua y literatura - Comprensión de textos científicos -Área educativa- Habilidades lingüísticas.

How to cite this article

Sánchez Machado, J.; Páez Quinde, M.; Gómez Alvarado, H.; Narváez Rios, M. y Maiza Vayas, L. G. A portal of magic with mathematics, understanding of texts.[Un portal de magia con la matemática, comprensión de textos]. Revista de comunicación de la SEECI, 43, 01-14. Doi: <http://dx.doi.org/10.15198/seeci.2017.43.1-14>. Recuperado de <http://www.seeci.net/revista/index.php/seeci/article/view/462>

1. INTRODUCTION

This research evidences reading comprehension and its importance in mathematical learning, knowing that the characteristic place for formal reading and writing learning is the school, which is the means to access knowledge permanently with written culture and texts. (Meneses, 2008)

The basis of school success is to know how to read since knowledge is accessed through reading, which provides greater opportunity for the future, forming free people. (Sastre, 2015)

The child, in order to be able to function in society, must acquire communicative skills, which are developed in school, such as interactions with peers, efficient and appropriate communication for learning, however, children with less developed language skills may have behavioral and social problems as well as difficulties in reading. (Villar, Delia; Vieiro, Pilar., 2015)

From the educational point of view, reading is part of the instrumental learning, therefore, it must be taught with a certain method, knowing that it is a complex cognitive activity through which the graphic signs become meanings; This process is relatively complex since it involves the implementation of perceptual processes

Sánchez Machado, J.; Páez Quinde, M.; Gómez Alvarado, H.; Narváez Rios, M. y Maiza Vayas, L. G. *A portal of magic with mathematics, understanding of texts.*

related to visual analysis, access to the lexicon and access to meaning. (Luciane, Katya; Silva, Patrícia; Koich, Fabiano, 2016)

Reading comprehension is a complex activity involving cognitive, linguistic, social and emotional mechanisms; school success is related to an adequate apprehension of the process of reading and understanding the read text, being one of the requirements for learning. (Guevara, Yolanda; Cárdenas, Karlena; Reyes, Verónica , 2015)

The same is treated in the classroom as a discipline of language and literature totally isolated from other subjects or areas of the curriculum, focusing only on the understanding of literary texts, abandoning the understanding of scientific texts. (Montes, 2015)

The comprehension of literary texts is easier to understand and retain, therefore its contents is assimilable to the context and imagination of the student, since they can be associated with experiences of the reader while the scientific texts are written in expository-argumentative prose, designed to inform and explain relations of phenomena, which implies a higher level of abstraction and linguistic dominance. (Perales, Damian; I Reyes, Rosario, 2014)

The same that is an interactive reference that must be understood within a communicative framework, as a consequence, his meta-knowledge includes the idea that his prior knowledge about the world and the subject must be integrated to achieve his own coherent interpretation of the text, implicit and explicit knowledge. (Haoming, 2016)

The morphological consciousness that has relation with the semantics (meaning of the linguistic expressions), like phonological (it studies the phonemes or theoretical descriptions of the vowel and consonant sounds that form a language) or syntactic (paper that a word or morpheme plays), and the ability of lexical inference intertwine with each other to predict the development of reading comprehension. (Lima, Gustavo; Duarte, Manuel, 2016)

The reader develops this ability superficially especially in scientific areas such as mathematics, since in these tasks his reading is superficial, that is, mechanical, with an emphasis on memorizing words, and does not delving into it. (Guerra, Evelyn; Forero, Carmen, 2015)

To achieve comprehension in the reading process, it is necessary to take into account the characteristics of the text, among which are its directionality and the level of comprehension of the reader. Another remarkable aspect is the way the text represents the writer, contributing to the exchange of meanings with the reader. Likewise, the writer's sensitivity to the reader and the way he uses language is emphasized, which facilitates the assimilation of meanings. (Jiang, Chinese College Students' English Reading Comprehension in Silent, 2015)

What allows the student to construct his vocabulary and establish an enduring learning, silent reading-mode significantly improves reading comprehension as it allows the reader to concentrate, while reading aloud does not reveal the same conclusions, since it prioritizes the decoding of phonological codes, rather than extracting the meaning of the text. (Katherine W. Price, Elizabeth B. Meisinger, Max M. Louwerse & Sidney D'Mello, 2015)

When reading a mathematical scientific text, the teacher or the student usually does it with an oral reading, so that all can listen to and understand the text, however, when having an oral reading the level of comprehension will be lower, since the reader concentrates on reading fluency.

In order to have an understanding of mathematical texts, it is important to understand the mathematical language and to develop competences, with the introduction of a vocabulary in agreement to the text, in order to facilitate the learning process. (Riccomini, Paul J.; Smith, Gregory W.; Hughes, Elizabeth M.; Fries, Karen M. – *Reading & Writing Quarterly.*, 2015)

Mathematics and its learning must be related to the professional training of the students, taking into account that there is a large gap between the student's grades and the skills that he develops, and we could be meeting students who have excellent qualifications, but did not apply math skills, therefore do not have a professional learning that allows them to develop in the workplace. (Huber, Daniel; Jones, Leslie; Helminski, Christine., 2015)

Learning mathematics, as the development of its particular skills, is increasingly recognized as a fundamental tool in understanding scientific phenomena, with mathematical models that use disciplines ranging from statistics to differential equations, geometry is an effective tool in biomechanical modeling, and one that has been used to develop a series of lessons on the functional importance of mathematics in nature. (Huber, Daniel; Jones, Leslie; Helminski, Christine., 2015)

The progress and prosperity of a country depend on the quality of mathematics taught in its school system, to improve the quality of life, skills such as reading, writing, arithmetic and practical skills are necessary for learning the same, therefore, we can say that a good understanding of mathematics is essential to make sense of all the numbers and in solving the complex problems of everyday life. (Anjum, Sabahat, 2015)

2. METHODOLOGY

The research is focused on the cognitive pedagogical model, referring to the current critical propositional paradigm of the human sciences, with the objective of helping students to acquire a comprehensive education, expanding their capacity for reasoning, reflection and resolution of mathematical problems, preparing them to face new challenges in the future.

The research is mixed because it used qualitative and quantitative methods, in addition techniques were applied with their respective instruments to the seventh year students of Basic General Education.

As a technique the survey was used and as an instrument a structured questionnaire, the objective was to diagnose the level of reading comprehension of the children of seventh year of General Basic Education parallel to "A" and "B" of the "Caracas" Educational Unit and to identify the learning process in the area of mathematics through the fulfillment of quality standards.

3. RESULTS

Reading aloud at an early age, allows the approach to knowledge, established from small conceptual bases, even when they have not yet acquired oral language. (Cortez, Ruth ; Arévalo, Humberto , 2015)

Reading comprehension is a complex issue that involves the theoretical contribution of professionals from different areas, since it works in cognitive, linguistic, textual and socio-cultural aspects, having a good understanding at the beginning of schooling, guarantees satisfactory school performance and the student will not have difficulty in the educational process. (Oliveira, Katya Luciane; Lúcio, Patrícia Silva; Miguel, Fabiano Koich. , 2016)

Learning to read and write a language does not occur naturally, as it requires the mediation of formal educational environments; in addition, it is shaped by complex verbal structures, which acquire specific meanings in certain contexts and is typical of the culture of the people.

Readers with reading comprehension difficulties have strengths, which they use to compensate for their difficulties, some students have good resources in speech perception, immediate word recognition, naming speed and working memory which can be associated with the ability to learn and employ strategies to remember information. (Martha Lucia Rincón-Bustos, Ángela Aguirre-Bravo, Saida Melisa Carmona, Paula Contreras-Ruiz, Laura Figueredo-Higuera, Constanza Guevara-Urrego, Sandra Liliana Sosa-Sabogal, Ana Jasmin Urán-Loaiza, 2015)

Motivation plays an important role in the understanding of texts as well as in cognitive processes, since it allows the reader to have self-confidence, increasing his interest and desire in the subject; when there are indices of anxiety, the reading comprehension diminishes. (Aysel, Memiş; Metin, Bozkurt, 2013)

Parents and teachers play a fundamental role, since the attitude of support they have with students, directly or indirectly motivate the student to create a habit of reading, being the same, preachers through their example. (Lim, Hyo Jin; Bong, Mimi; Woo, Yeon-Kyung, 2015)

Mathematicians and mathematics teachers themselves are good readers of texts, of any subject that this is, while the specialized teachers have another area, they have

focused their learning and teaching on the reading of fiction and prose, therefore in the mathematics it is particularly difficult to read the content, the presentation of demands on thinking and comprehension skills of the highest level, many students cannot easily understand math texts, even when they are able to decode the print materials, these books do an intensive use of precise symbols and unknown vocabulary, use longer and more complex sentence structures; contain more words, symbols and concepts per paragraph than other texts; and have little redundancy to assist with interpretation. (Adams,Anne; Pegg,Jerine ; Case, Melissa., 2015)

It should be borne in mind that the development of metacognitive abilities is not only linked to biological maturity, but is directly influenced by the different learning experiences of the subject, since these are the ones that make possible, to a greater or lesser degree, the level of knowledge that the subject has over the reading process. (Fernández,Eduardo; Núñez, Rocío; Fernández, María, 2015)

The shared reading allows the reader to share his or her criteria with others, thus increasing their knowledge, improving their academic performance, increasing and making use of new vocabulary and encouraging the practice of reading for pleasure. (Goikoetxea, Edurne ; Martínez, Naroa , 2015)

The use of technologies benefits the reader and allows access to books, thus facilitating their autonomous reading and therefore learning based on constructivism since the student creates his own knowledge. (Ortega, 2015)

It is important that in mathematics teaching students are not pressured because the environment in which they learn is fundamental to the approach to learning mathematics. (Gonzales, 2016)

In the practice of the area of mathematics it is necessary to emphasize the objectives and contents, which must be clearly established to guide the educational practice of a country, based on multiple resources. (Ruiz, 2015)

The early years of life are fundamental in the development of mathematical skills, but the learning opportunities at that age are limited by the socio-economic context of the inhabitants that one has, which prevents the development of meaningful learning. (Wang, Aubrey H.; Firmender, Janine M.; Power, Joshua R.; Byrnes, James P., 2016)

4. DISCUSSION

To develop an efficient and effective autonomous learning in the area of mathematics, it is essential that the student develops language skills, such as reading comprehension. The same that starts from an early age, this will favor that he acquires a reading habit, it also allows him to acquire a new vocabulary, increasing his knowledge.

Sánchez Machado, J.; Páez Quinde, M.; Gómez Alvarado, H.; Narváez Rios, M. y Maiza Vayas, L. G. *A portal of magic with mathematics, understanding of texts.*

Reading comprehension allows students to understand what they read, to work autonomously, developing value judgments about the text, giving them opportunities in their personal and professional lives.

Mathematics helps us to develop our critical, rational, purposeful thinking to solve problems of daily life, allowing us to develop in society.

It is necessary to continue to carry out research on the subject, since it will allow teachers and the school to merge reading comprehension with other areas in the curriculum, allowing the teacher to carry out his work easier without abandoning this skill that is essential for students to learn, eliminating negative beliefs in the area of mathematics. It is necessary to involve the family in the school as they are the fundamental pillar of motivation of the student.

5. CONCLUSIONS

Reading comprehension involves mechanisms, not only of previous knowledge but also of communication, social and emotional, that can affect or benefit the development of language skills and, therefore, the learning of them.

Reading stories from pregnancy helps to stimulate brain activity, showing them other experiences and bringing them closer to knowledge, which is the basis for the acquisition of future skills in the school process, and encourages reading habits in all stages of life.

Motivation arouses students' interest in reading, as this factor is what drives the human being to reach his goals, if there is no predisposition to achieve an activity, it is difficult to achieve the goals set.

The mathematical vocabulary is more difficult to understand than the daily vocabulary, so there must be a vocabulary enriched in this area to understand it, most students memorize mathematical concepts to perform in evolution.

The development of reading comprehension strategies facilitates the learning of students, in any educational area, being this a tool for autonomous learning.

6. REFERENCES

Adams, A.; Pegg, J. ; Case, M. (2015). Anticipation Guides: Reading for Mathematics Understanding. *Mathematics teacher, 108*(7)

Anjum, Sabahat. (2015). Gender Difference in Mathematics Achievement and Its Relation with Reading Comprehension of Children at Upper Primary Stage. *Journal of Education and Practice, 6*, 16, 71-76

Backhoff, E., Sánchez, A., Peón, M., & Andrade, E. (2010).). Comprensión lectora y habilidades matemáticas de estudiantes de educación básica en México: 2000-2005. *REDIE: Revista Electrónica de Investigación Educativa, 12*(1), 18 p.

Barba, L. (2002). *Pedagogía y relacion educativa*. México.

Sánchez Machado, J.; Páez Quinde, M.; Gómez Alvarado, H.; Narváez Rios, M. y Maiza Vayas, L. G. *A portal of magic with mathematics, understanding of texts*.

Becerra, J. (2012). Destrezas lectoras. En J. Becerra, *Lenguaje y comunicacion*. Quito: Holos editorial.

Bofarull, T. (2001). *Comprension lectora*. España: Editorial Laboratorio Educativo.

Bolivar, A. (2011). *Competencias Basicas: razones*. España: editorial Sintesis.

Bosco, D. (2000). Tipos de lectura. en D. Bosco, *Lenguaje y Comunicacion*. Quito: Editorial Don Bosco.

Bustos, E. (2010). Dificultades en la comprension lectora. *Innovacion y experiencias educativas*, 37, 1-10

Cañuelo, C. (2011). *La dislexia.net*. Recuperado de <http://www.ladislexia.net/dificultades-de-comprension-lectora/>

Caravajal, L. (2013,). *Lizardo Caravajal.com*. Recuperado de <http://www.lizardo-carvajal.com/que-es-la-lectura/>

Carrasco, J. B. (2004). *Una didactica para Hoy*. Madrid: Ediciones Rialp S.A.

Catalá G; Catala M.; Molina E.; Monclus R. (2001). Componentes de la comprension lectora. En C. M. Catalá Gloria, *Evaluacion de la comprension lectora* (p. 221). Barcelona: Imprimix.

Centro Virtual Cervantes. (2016). *Centro Virtual Cervantes* . Recuperado de http://cvc.cervantes.es/ensenanza/biblioteca_ele/diccio_ele/diccionario/comprensionlectora.htm

Chicaiza, D. (2012). *Estrategias de lectura comprensiva y su incidencia en el aprendizaje significativo de los estudiantes de tercer año de Educacion Basica de la escuela Humberto Ochoa*. Ecuador: Universidad Técnica e Ambato.

Cortez, R. ; Arévalo, J. H . (2015). Dificultades lingüísticas en la lectura en voz alta en niños del grado 1-4 de la sede Santo Tomás de la institución educativa municipal Santa Teresita de Catambuco de Pasto. *Tendencias*, XVI, 1, 65-75.

Diaz Ortíz, A. (2010). Comprension lectora de los aprendizajes matematicos. *Innovacion y experiencias educativas*, 27, 1-14.

Duque, S. (2014). Resultados de las pruebas "Ser Estudiante" serán un insumo para la política pública. *El ciudadano*.

El Comercio. (2012, Noviembre, 28). El habito de la lectura es abandonado por los ecuatorianos.

El Comercio. (2012, Diciembre, 14). Ambato es una de las ciudades con más alto indice de lectura .

El Comercio. (2012, Diciembre, 14). Ambato es una de las ciudades con el más alto indice de lectura.

Sánchez Machado, J.; Páez Quinde, M.; Gómez Alvarado, H.; Narváez Rios, M. y Maiza Vayas, L. G. *A portal of magic with mathematics, understanding of texts*.

El Comercio. (2014, julio, 03). 'Bomberos' en la evaluación Ser Estudiante que se aplicó a los alumnos del Ecuador.

El Comercio. (2014, julio 03). La evaluación Ser Estudiante que se aplicó a los alumnos del Ecuador.

El Diario Manabi. (2007, septiembre, 18). Lectura comprensiva o leer entrelíneas. El diario.

Facultad de ciencias de la educacion. (2015). *l.exam-10.com*. Recuperado de <http://l.exam-10.com/doc/10683/index.html>

Fernández,E.; Núñez, R.; Fernández, M. (2015). Aportaciones de un análisis de necesidades sobre la situación. *Revista de Investigación en Educación, 13(2)*, 288-302

Flores Macías, R. C.; Jiménez, J. E. y García E. (2015). Basic Cognitive Processes Associated with Secondary Students' Difficulties in Reading Comprehension. *Revista Mexicana de Investigación Educativa, 20(65)*, 581-605

Fuentes, L. (2009). Diagnostico de la comprension lectora en Educacion Básica en Villarica. *Perfiles educativos, 31(125)*, 23-37

Garcia, J. A. (2015). El Lenguaje Ordinario: La Clave para el Aprendizaje de las Matemáticas Basado en Problemas. *Actualidades Investigativas en Educación, 15, 1*, 495-519

Goikoetxea, E, ; Martínez, N. . (2015). The benefits of shared book reading: a brief review. *Educación XX1: Revista de la Facultad de Educación, 18, 1*, 303-324

Gonzales, L. (2016). *Elaboración y evaluación de "tareas matemático-literarias" para mejorar la comprensión en 3º de la ESO*. Tesis doctoral. Universidad de Extremadura

Guerra, Evelyn; Forero,Carmen. (2015). Estrategias para la comprensión de textos academicos. *Zona Próxima, 22, 33 - 55*.

Guevara, Y.; Cárdenas, K.; Reyes, V. (2015). Niveles de comprensión lectora en alumnos de secundaria. Una comparación por tópico. *Actualidades en Psicología, 29, 118, 13-24*

Haoming, Z. (2016). Concurrent and Longitudinal Effects of Morphological Awareness on Reading Comprehension Among Chinese-Speaking Children. *Reading Psychology, 37, 6*, 867-884.

Huber, D.; Jones, L.; Helminski, Christine. (2015). The Importance of Mathematical Models to Scientific Discovery: A Case Study on the Feeding Mechanism of the Goliath Grouper "Epinephelus itajara". *Australian Mathematics Teacher, 71, 3*, 24-29.

INEC. (2012). *Hábitos*. Quito.

Sánchez Machado, J.; Páez Quinde, M.; Gómez Alvarado, H.; Narváez Rios, M. y Maiza Vayas, L. G. *A portal of magic with mathematics, understanding of texts*.

Jiang, Y. (2015). Chinese College Students' English Reading Comprehension in Silent. *English Language Teaching*, 8, 4, 24-30.

Katherine W. Price, Elizabeth B. Meisinger, Max M. Louwerse & Sidney D'Mello. (2015). The Contributions of Oral and Silent Reading Fluency to Reading Comprehension. *Reading Psychology*, 37, 2, 167-201.

Lim, Hyo Jin; Bong, Mimi; Woo, Yeon-Kyung. (2015). Reading Attitude as a Mediator between Contextual Factors and Reading Behavior. *Teachers College Record*, 117, 1.

Lima, Gustavo; Duarte, Manuel. (2016). Concepções de estudantes. *Ensaio: Avaliação e Políticas Públicas em Educação*, 24, 91, 380-394

LOEI. (2008). LOEI. Quito.

Lozano, C. S. (2009). Comprension textual. Colombia: Kimpres Ltda.

Luciane, Katya; Silva, Patrícia; Koich, Fabiano. (2016). Considerations about Understanding ability in reading and Ways of its Assessment. *Psicologia Escolar e educacional*, 20(1) 10.

Memis, A.; Bozkurt, M. (2013). The relationship of reading comprehension success. *Educational Research and Reviews*, 8, 15, 1242-1246.

Mendonça, D. ; Sella, A.; Motta, S. ; Motta, H . (2016). Assessing story production and retelling repertoires in children. *Estudos de psicologia. Natal*, 21 (1)

Meneses, A. (2008). Leer y escribir en una escuela chilena. *Signos*, 22, 257-278.

Mialaret, G. (1979). El derecho del niño a la educación. Paris: Imprimerie Universitaires de France, Vendome.

Ministerio de Educación. (2011). In E. d. *Aprendizaje, Estándares de Calidad Educativa*. Quito: Ministerio de Educación.

Ministerio de Educación.(2011). Estándares de Aprendizaje. In M. d. *Educación, Estándares de Calidad Educativa*. Quito: Ministerio de Educación.

Ministerio de Educación.(2010). Objetivos matemáticos. In M. d. *Educación, Actualización y fortalecimiento curricular*. Quito.

Ministerio de Educación. (2010). *Actualización y fortalecimiento curricular*. Quito

Ministerio de Educación. (2011). *LOEI*. Quito.

Ministerio de Educación. (2016). *Curriculo*. Bogota, Colombia.

Miranda, H. (2013, Noviembre 16). ¿Cómo evaluar los niveles de comprensión lectora?

Sánchez Machado, J.; Páez Quinde, M.; Gómez Alvarado, H.; Narváez Rios, M. y Maiza Vayas, L. G. *A portal of magic with mathematics, understanding of texts*.

Montes, P. (2015). Niveles de comprensión lectora en alumnos de secundaria. Una comparación por tópico. *Actualidades en Psicología*, 29(118), 13-23. Doi:<http://dx.doi.org/10.15517/ap.v29i118.14619>

Murga, P. (2015). *Diccionarios Rioduero*. Madrid: Ediciones Rioduero.

Oliveira, Katya Luciane; Lúcio, Patrícia Silva; Miguel, Fabiano Koich. . (2016). Considerações Sobre a Habilidade de Compreensão em Leitura e Formas de sua Avaliação. *Psicologia Escolar e Educacional*, 20(1), 69-77. Doi:<http://dx.doi.org/10.1590/2175-353920150201930>

Ortega, F. (2015). La importancia de la lectura y de las nuevas tecnologías en el aprendizaje del español para inmigrantes. *Investigaciones Sobre Lectura*, 3, 123-133

Ortiz, A. (2013). *Modelos pedagogicos y teorías del aprendizaje*. Bogota: Editorial Buena Semilla.

Pasquel, V. (2010). La comprensión lectora en el proceso de enseñanza aprendizaje de los alumnos del tercer año de educación básica de la escuela "Abdon Calderon". Ambato, Ecuador: Universidad Técnica de Ambato.

Perales, D.; Reyes, R. (2014). The impact of a linguistic intervention on rhetorical. *Signos*, 23.

Pérez, E. J. (2014). Comprensión lectora VS Competencia. *Investigaciones sobre lectura*, 1, 65-74

Pulgar, J. (2005). *Evaluación del aprendizaje en educación no formal*. Madrid: Narcea.

Quesada, J. (2016). *Niveles de Comprensión Lectora*. ecured.

Ramos, L. (2010). Psicologos.com. Recuperado de: <http://www.psicopedagogia.com/articulos/?articulo=316>

Riccomini, P. J.; Smith, G. W.; Hughes, E. M.; Fries, K M. The Language of Mathematics: The Importance of Teaching and Learning Mathematical Vocabulary. *Reading & Writing Quarterly*, 31(3), 235-252. doi:10.1080/10573569.2015.103099

Rincón Bustos M. L.; Aguirre Bravo, A.; Carmona, S. M.; Contreras Ruiz P.; Figueredo Higera L.; Guevara Urrego, C.; Sosa Sabogal S. L.; Urán Loaiza, A. J. (2015) ¿Cómo la comprensión de lectura en estudiantes sordos se ve facilitada por el uso de tecnologías de la comunicación e información? *Revista de la Facultad de Medicina*. 63, 83-91. doi: <http://dx.doi.org/10.15446/revfacmed.v63n3sup.50570>.

Roca, D. J. (2015). *Hiperlexia: Mitos y Realidades*. Encolombia.

Sánchez Machado, J.; Páez Quinde, M.; Gómez Alvarado, H.; Narváez Rios, M. y Maiza Vayas, L. G. *A portal of magic with mathematics, understanding of texts*.

Ruiz, A. (2015). Los "estándares" en la educación matemática de los Estados Unidos. *Uniciencia*, 20, 2, 379-391.

Santillana. (2010). *Textos*. Quito: Santillana.

Santillana, G. (2011). Aprendizaje matemático. In G. Santillana, *¿Cómo evaluar el área de matemáticas?* Quito: Santillana.

Sastre, M. S. (2015). La lectura y la competencia lectora en el siglo XXI. *Investigaciones Sobre Lectura*, nº 5, 81-83.

TIC, E. (2006). Dificultades en el aprendizaje. In J. F. Cerván, *Dificultades en el aprendizaje: unificación de criterios diagnósticos*. Sevilla: Junta de Andalucía

Tomas, U. d. (2014). *Curriculo*. Universidad de Santo Tomas.

Tomas, U. S. (2016). Tipos de modelos pedagógicos. *Santo Tomas*, 10.

Tusquets, J. (1983). *Teoría de la educación*. Madrid: Magisterio Españoles S.A.

Villar, D. y Vieiro, P. (2015). Métodos de lectura y acceso léxico on-line en lectores principiantes. *Ciencias Psicológicas*, 9(2), 309 - 319.

Wang, A. H.; Firmender, J. M.; Power, J. R.; Byrnes, J. P. (2016). Understanding the Program Effectiveness of Early Mathematics Interventions for Prekindergarten and Kindergarten Environments: A Meta-Analytic Review. *Early Education and Development*, 27, 5, 692-713

Ward, W. (2010). Consejos para Ayudar a Niños con Dificultades. *Super Duper® Handy Handouts!®*, 139.

AUTHORS:

Juana Elizabeth Sánchez Machado

Degree in Education Sciences mention Basic Education by Technical University of Ambato, and bachelors in the specialty of mathematical physicist, has the position of pedagogical assistant in the "Bilingual Particular Institute" A.B.C.

María Cristina Paéz

Computer and Systems Engineering, Master's Degree in Technologies for Management and Practice Teachers, Researcher at the Faculty of Human Sciences and Education, Administrative Academic Director of the Master's Degree in Educational Informatics, Design of a semantic frame work to modeling human behavior in surveillance context. Magazine: Scopus
https://www.researchgate.net/profile/Maria_Paez13

Hector Fernando Gómez Alvarado

PhD. In Computer Science by the National University of Distance Education, Expert in Geographic Information Systems, Universidad Internacional de Andalucía. PostDoc in

Sánchez Machado, J.; Páez Quinde, M.; Gómez Alvarado, H.; Narváez Rios, M. y Maiza Vayas, L. G. *A portal of magic with mathematics, understanding of texts.*

the ETS-Canada. Computer Engineer at the Technical University of Loja-Ecuador. Full-time Research Professor and Postgraduate Director at Ambato Technical University.

<http://orcid.org/0000-0002-7310-4260>

Margarita Narváez Rios

Systems Engineer, Tics Assistant at Ambato Technical University

Luis Gonzalo Maiza Vayas.

Academic systems analyst, graduate in Science Education. He is teacher in basic education.