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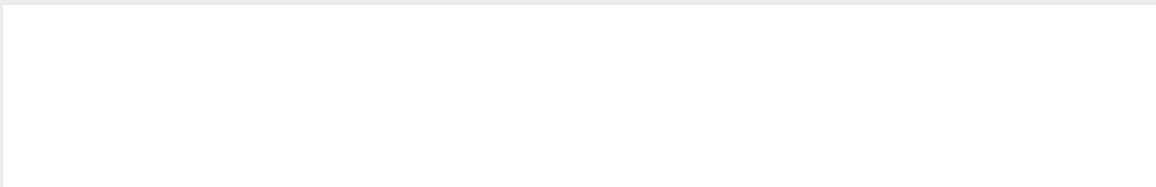
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# Method for Developing an International Curriculum and Assessment Framework for Reading – Summary

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This paper presents the methodology followed for developing a theoretical and methodological reference framework that supports the development of a Global Framework related to the reading competency and the efforts towards monitoring progress towards SDG 4.1.1:

*4.1: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.*

*4.1.1 Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex.*

In order to achieve this goal, information was drawn from two different sources. Firstly, the components implied in learning how to read proposed by cognitive models, which have greatly contributed to our current understanding of reading acquisition were identified. Secondly, these were contrasted with what is proposed by national curricula from three different language roots (English, French and Spanish). The information coming from both of these sources allowed for the development of a common framework.

## Learning how to read

### From oral to written language

Reading processes depend on the reader's language and the writing system that codifies it (Perfetti, 2001). Children's concept of language gradually evolves. While at the beginning their focus is on its communicative function, gradually their attention shifts to the formal aspects of language, showing their sensibility to the phonological properties of words. Therefore, learning how to read in alphabetic systems entails the explicit knowledge of the sounds that compose words, necessary requirement to achieve an automated knowledge and mastery of the grapheme-phoneme correspondence. Phonological awareness is a fundamental variable for reading acquisition and the passage from oral to written language is strongly conditioned by this skill.

### Reading

There are several variables related to achieving efficient reading skills. All of those variables have basically been categorized in two reading components: decoding and reading comprehension, considering this last one as the aim of reading and the first one as a necessary skill to achieve this aim.

### Teaching how to read: identifying processes, knowledge and skills portrayed in national curricula from different language roots

The contributions made by cognitive theories and research have allowed for a relevant progress regarding the comprehension of processes, knowledge and skills that make up proficient reading. This has led to a revision of and reflection on teaching practices in schools that have been more than once questioned by international and national learning assessments. When analysing national curriculum pertaining to different orthographic systems (i.e. Spanish, English French), these are usually defined in terms of competencies. Competencies are understood as the application of knowledge that aids in the differentiation between basic and desirable learning (Coll & Marin, 2006). In the review of national curricula, the result is to establish, based on competencies, a set of domains and constructs that are required to efficiently learn how to read through formal schooling in three different languages. Languages, that as has been pointed out before, differ in reference to their degree of correspondence between graphemes and phonemes.

To achieve this result, firstly the research team defined and codified a set of domains and constructs that refer to processes, knowledge and skills involved in learning how to read. Secondly, they confronted that coding, by analysing differences and similarities with the study made of three national curricula for each of the language roots at three different stages of formal schooling. With this analysis they revised the code, in such a way that it would allow for the inclusion of all of the competencies and contents presented in the curricula without losing the cognitive model behind it. The resulting framework allows mapping other diverse national curricula and national assessments related to reading

## Competencies

### Metalinguistic competency

Phonological awareness is considered in the Coding Scheme as a metalinguistic competency. Phonological awareness is understood as the ability to reflect on and manipulate the sounds of speech (words, syllables, intra-syllabic units, and phonemes) and it is considered as one of the most powerful predictors of reading acquisition, as its development is necessary to master the alphabetic code.

### Reading competency

For teaching how to read, research focusing on evidence-based teaching (Camilli, Vargas, Ryan, & Barnett, 2010; Chard, Ketterlin-Geller, Baker, Doabler, & Apichatabutra, 2009; Gersten et al., 2009) has defined a set of core components, related to the linguistic and metalinguistic competencies needed. These core components are usually grouped in two domains: decoding and comprehension. Decoding refers to the ability to associate the orthographic form of a word with its phonological form, where the orthographic form is given by the sequence of the graphemes. With the development of the reading competency, the decoding skills increase and become automatic. This allows for precision and fluency in the recognition of written words. Reading comprehension is the ultimate goal of reading, as it is the process by which one retrieves information from a written text, interprets it and even reflects upon it.

### Linguistic competency

Linguistic competency includes three different domains: listening, speaking and vocabulary. This competency refers to the ability of retrieving and interpreting verbal information at the word, sentence and oral text levels. In order to include both receptive and productive skills the research team created the listening and speaking domains, to differentiate both aspects. The vocabulary domain appears because it is one of the variables that shows a stronger association with linguistic comprehension (Compton, Gilbert, Jenkins, Fuchs, Cho & Bouton, 2012).

## Procedure followed to create the Global Framework

Based on theoretical models as well as on the analysis of national curricula the reference list and coding scheme was constructed. In this sense, the research team identified a set of competencies related to learning how to read and established the domains, sub-domains and constructs which these models considered relevant for written language acquisition. The following step was to take the national curricula (of different countries from three language roots: Spanish, English and French) and try to map them into the different categories. The curricula selected were the ones of Guatemala, Ecuador and Paraguay (Spanish), Micronesia, Ontario-Canada and Bahamas (English), Republic of Congo, Quebec-Canada and Belgium (French).

## Users and uses

The Global Framework can be used by jurisdictional or national bodies, educational institutions or organizations as well as by international agencies. In all cases possible uses include mapping jurisdictional and/or national curricula, mapping national or international assessment frameworks and assess agreement between curricula and assessment frameworks.

## Structure of the Global Framework

The Global Framework is composed of six tabs. Tab 1, named “Competencies-Reference List”, includes the three competencies considered (Reading, Linguistic and Metalinguistic) and their respective sub-domains, constructs and sub-constructs. This tab will be used for mapping. Tabs 2 to 4 refer to one competency each and are named accordingly. In each of the tabs there are descriptions and examples of each of the sub-constructs that correspond to that competency. Tabs 5 and 6 have examples of a NAF that has already been coded.

A set of coding instructions was also created to facilitate any potential users when mapping assessment and curriculum documents onto the framework.



## Bibliography

Camilli, G., Vargas, S., Ryan, S. & Barnett, W.S. (2010) Meta-analysis of the effects of early education interventions on cognitive and social development. *Teachers College Record*, 112 (3), 579-620.

Chard, D.J., Ketterlin-Geller, L.R., Baker, S.K., Doabler, C. & Apichatabutra, C. (2009) Repeated reading intervention for students with learning disabilities. Status of the evidence. *Exceptional Children*, 75 (3), 263-281.

Coll, C. & Marin, E. (2006) Vigencia del debate curricular. Aprendizajes básicos, competencias y estándares. *Revista Prelac. Proyecto Regional de Educación para América Latina y el Caribe*, 3, 6-27.

Compton, D.L., Gilbert, J.K., Jenkins, J.R., Fuchs, D., Fuchs, L.S., Cho, E., Bouton, B.D. (2012). Accelerating chronically unresponsive children to Tier 3 instruction: What level of data is necessary to ensure selection accuracy? *Journal of Learning Disabilities*, 45, 204–216.

Gersten, R., Compton, D., Connor, C. M., Dimino, J., Santoro, L., Linan-Thompson, S. & Tilly, W.D. (2009) Assisting students struggling with reading: response to intervention (Rti) and multi-tier intervention in the Primary Grades. *National Center for Education Evaluation and Regional Assistance*, 190 (1-3), 883-890.

Perfetti, C. A. (2001). Reading Skills. *Reading and Writing Journal of Neurology Neurosurgery and Psychiatry the Japanese Mental Lexicon. Benjamins Neuropsychology Neuropsychology*, 10(15), 12800–12805.