LINGUISTIC AND COGNITIVE FACTORS THAT INFLUENCE ON READING LEARNING

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Abstract.
The purpose of this review is to analyze linguistic and cognitive variables that determine Reading, underlining Phonemic Awareness (PA) like the main one to develop a successful reading. The nature of language influences on the PA and examples of English and Spanish language are provided which influence of the acquisition of a second language. Therefore, knowledge of phoneme-grapheme correspondences determines reading fluency and reading comprehension (Llombart-Huesca, 2017). Finally, from this point, we provide a series of techniques to carry out in primary education lessons in order to develop PA from Second Language Acquisition by an active participation of students in the process of learning in order to get meaningful learning.

Key words: Language, Cognition, Reading and Phonemic awareness.

1. Introduction

Reading is related to linguistic and cognitive factors like letter knowledge and decoding process being the last one an essential base to develop comprehension (Kim, 2015). Here, Phonemic Awareness (PA) plays an important role like a measure of linguistic and cognitive factors that crucially determines Reading (Kirby, Roth, Desrochers, & Lai, 2008).

In order to predict word reading proficiency, PA plays an important role. PA is the ‘ability to recognize and manipulate the sound constituents of oral language and to apply this insight to alphabetic knowledge of written sublexical units of words’ (De Groot, Van den Bos, Van der Meulen, Minnaert, 2015, page. 169).

PA is correlated with reading comprehension (Choi, Hatcher, Dulong-Langley, et. al., 2016) due to the fact that PA is controlled for word reading (De Groot, et. al., 2015).

Prompting pupils to learn the association between alphabet and sounds is related to the awareness of the relationship between sounds and letters through playful activities and exercises according to pupils’ needs in order to get motivation. This supposes to cover different stimuli to prompt a meaningful learning based on the development of Phonemic Awareness (Reitsma, 1983).

In order to prompt the learning of alphabet and sounds is necessary to establish a connection. From this point, the main educational aims are to develop the relationship between alphabet and sounds by integrating sounds into words; to use visual and auditory material that prompt the matching of letters with sounds; and to develop phonic games to prompt learning in a meaningful way.

PA makes pupils aware of how words are compounded by sounds and letters, and they are able to extrapolate the phonemes into graphemes and vice versa. This capacity directly makes reference to visual skills like Reading and Writing due to the fact that children start out acquiring basic decoding skills of graphemes into sounds and vice versa. Also, it is added the difficulty of some language like English which has different sound performance. For example, the letter C is the initial sound of ‘cat’ and ‘cinema’, or the vowel U is presented in ‘umbrella’ and ‘unicorn’. However, Spanish is more regular in this sense. Spanish has got a relationship between graphemes and phonemes which is more clear, however there are different phenomena inside Spanish language such as one grapheme is associated with more than one phoneme (the grapheme C is related to /k/ and /θ/); one phoneme is performed by more than one grapheme ( /θ/ is performed by the graphemes b and v), or there are silent graphemes like ‘h’ that does not represent any sound at all (Llombart-Huesca, 2017).

In this way, the measures to prompt the relationship between alphabet and sounds is through phonic-based activities where students learn the sound inside words, so pupils develop not only phonemic awareness, but phonological awareness about how the sound is pronounced inside a word. The way to get this development of language is prompting learning in an enjoyable way. Therefore, there is a linguistic and cognitive process that readers practice in order to read novel or unfamiliar words which is decoding. Students develop decoding strategies which analyze graphemes to get the corresponding sound performing and subsequently the reading of words (Onochie-Quintanilla, Defior and Simpson, 2017).

Thus, the display of colourful appearance charts of language alphabet around the classroom with several...
examples of the letter in different words makes students being aware of the difference between alphabet and sounds. So, the use of visual support through charts and pictures helps students to learn meaningfully by associating the sound to words which is more memorable, acting the word as a chunk of language. These displays prompt visual learners (Baines, 2008). Moreover, the use of songs, chants and games can be also valuable tools to satisfy a wide variety of learning styles (visual, auditory, and kinaesthetic). This implies to prompt a positive attitude towards Reading. Therefore, a measure to prompt linguistic and cognitive factor in Reading is the use of varied didactic materials where the use of the Interactive Whiteboard like channel of communication of websites and digital programmes provide a lesson full of stimuli that satisfy the diversity of learning styles and rhythms of work in the lesson.

2. Methodology and Techniques in the development of PA

From an educational point, the methodology in order to prompt the learning of Reading is to plan from a Learner-centred approach in order to take as basis pupils’ characteristics and needs (Nunan, 2004). The use of chants and songs provide the acquisition of Phonemic awareness in a subconscious way, so linguistic and cognitive factors over Reading improves. Many linguistic and cognitive factors are included into Reading. Cognitive factors influence on the development of language, so processes like Recalling and Understanding (Anderson & Krathwohl), low level cognitive processes, are the main goal to promote at school. Here, songs take a great potential even for languages that does not imply a regular correspondence because it is valuable to choose a song that includes examples of each letter of the alphabet in different words in order to develop in children cognitive processes of comparison and understanding of the connection between letters and sounds. In order to support the listening inputs, visual material like pictures provide the necessary information to understand the meaning of words. Consequently, teachers’ role play an essential value like an organizer of educational resources that prompt Phonemic Awareness in Reading, providing a facilitator role in order to learn in a motivating way (Weimer, 2002).

Children usually have different rhythms of learning. This is the main challenge that teachers have when they face reading skills in children. The situation of having mixed-ability class is the opportunity to improve teaching and access to other ways of learning. The value of Didactic Sequence Methodology (Dolz, 1994) supposes to plan according to pupils’ improvement in any skills, and especially in Reading. Teachers must plan remedial work according to the needs that in a classroom can come up.

A meaningful prompting learning of Reading is a linguistic and cognitive process that pretends to develop PA through activities and exercises according to pupils’ interests. Students learn to represent some sounds (phonemes) by letters (graphemes). Thus, this is not an easy learning because they structure the reality in a global way (Piaget, 1954), and phonemic awareness demand an analytic thinking (Puchta and Williams, 2011). Now, we propose a teaching-learning process based on the development of phonemic awareness through different easy activities that teachers can carry out. These activities are planned to perform a final task by children that consists in making a phonic display and tell to collect a final phonic book to take home. The activities related to this final task are the following:

1. Warm-up stage: Whole-class work: Approach to the alphabet: Watch a video: Pupils watch a video on the Interactive Whiteboard with animation for each letter of the alphabet in small and capital letter writing in order to prompt pupils’ motivation towards the alphabet (You Tube Kids TV). In this way, pupils learn in a funny way through an interactive material according to their age and interests in order to get all pupils are involved in the lesson (Linse, 2005), so we get to provide an inclusive language teaching.

2. Presentation stage: Whole-class work: Introducing sounds: Listen, chant and clap: Pupils watch and chant the alphabet with words related at the rhythm of clapping. Alphabet and words related are shown successively and in a colourful way to catch pupil’s attention supported by pictures, so Multiple Intelligences like Verbal, Musical and Visual are prompted in a subconscious way (Gardner, 1983).

3. Controlled-practice: Individual work: Practice of sounds: Listen and complete with missing letters: We provide students a worksheet with pictures related to words that have some blanks to complete. As a support, we must provide the letters that they have to complete. The use of pictures and letters to complete helps students with learning difficulties to put into practice some learning cognitive strategies like recognition, selecting, crossing, etc. (Gagné, 1996)

4. Controlled-practice: Pair work: Phonic game: Hangman: Pupils must complete a word by spelling its letters. In pairs, one player writes the corresponding lines of each letter of a word. The second player says one by one letters. If the spelling is right, the player 2 goes on. If the spelling is wrong, the player 1 draws a part of a picture. If this picture is drawn altogether, the player 1 wins. In this way, it is very important to foster heterogeneous groups in order to prompt cooperative work among students (Vygotsky, 1983).

5. Controlled-practice: Small and Whole-class group: Phonic matching: Make a Phonic Wood: Listen and
stick: I give different banks of pictures to students. Each picture has below its corresponding name. I give time to manipulate the cards and watch the pictures and the written words in groups. Later, they listen to one word from their bank, and they must stick each card on a tree that has at the top the target letter of the alphabet. I can choose, at first, the most English common sounds as goals like ‘s, a, t, i, p, n’ according to the Jolly Phonics Method (Lloyd, 2005) in order to reinforce the recognition of English sounds and the English alphabet. When all the trees are done, we can practice the pronunciation of these words in big group to check if they are right. Finally, we get to have a Phonics Wood that can be displayed in the classroom to prompt visual learning (Baines, 2008).

6. Final task: Individual work: Make a Phonics Display and tell: The 26 letters of the alphabet are split out among pupils. Students must make a display about a specific letter through drawing and writing some examples of words related. In order to facilitate the connection between sounds and letters, I take them to the computer room to practice through the digital programme Text-To-Speech which becomes written words into oral inputs. Later, they show, in turns, their displays and read the words that they choose for a specific letter of the alphabet according a structure, for example, ‘Play and fun. A is in apple, arm and ant’. At the end, pupils can collect all their works and make a phonics book to take home, in turns, to involve parents in the English lesson.

3. Conclusion

The decoding process of Reading is directly related to cognitive processes and models of thinking (McGuinness, 2005). Many mental processes play at this learning due to the fact that the final goal is the development of Phonemic Awareness to improve reading skills. Recalling is fostered because learners must remember pronunciation of the graphemes. Also, Analysis process is boosted through the decoding of words into sounds. However, learners must also develop a holistic thinking by pronouncing the words as a whole which is Phonological Awareness. This supposes to develop practical thinking by developing strategies to read and comprehend (Puchta and Williams, 2011).

Therefore, we have seen that in order to prompt a successful development of reading, many linguistic and cognitive processes play an active role however, in order to detect necessary adjustments during the teaching-learning process of readings, evaluation must be inside the teaching-learning process in order to satisfy pupils’ needs and plan some remedial work to satisfy diversity of learning. One item that reading involves is to identify and initiate the use of strategies of basic communication applying previous knowledge. This is an evidence of PA because pupils must decode graphemes into sounds to read.

The relationship between the English alphabet and the English sounds is related to PA (Reitsma, 1983). Understanding the relationship between English sounds and the English alphabet can be a little bit complicated for L2 learners in Primary Education. For that reason, they must acquire them in a subconscious way in order to prompt a meaningful learning and make the sounds of alphabet into words more memorable. It is necessary to start with those sounds that are more frequent in the language in order to improve pupils’ positive expectations towards their Linguistic and Communicative Competence. These sounds must be introduced through the use of phonics-based activities like games, songs, chants, etc. according to students’ interests in Primary Education. These didactic resources increase the PA of pupils, and their knowledge towards the second language. So, they perceive themselves more competent and motivation is higher, prompting an active participation in the lesson (Nunan, 2004).

11. References


