

## From the Graphic Gesture to Early writing Learning Skills in Preschool Children

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### Abstract

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The purpose of this study is to understand how the development of written language learning takes place in pre-school children, what are the characteristics of pre-school age and if writing it's a skill that develops in a line way. A cross-sectional research design was used to investigate the development of graphic skills in children aged 3 to 5 years. In particular, for this research 461 (four hundred sixty-one) preschool children (from three to five years old), who have been administered individual tests related to writing and to development all the abilities underlying it. The results obtained were that there is a gradual increase of writing skills of the preschool children (3-5 age). It is possible to define that the development of writing has a linear development. In particular, the learning of writing language follows a trend of linear development in children from preschool through the graphic gesture to forms of conventional writing in school age.

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**Key words:** early literacy; graphic gesture; learning writing skills; preschool children.

### Introduction

In the last twenty years the researches carried out on the abilities underlying the writing process, have shown how the acquisition of this capacity takes place a bit like the acquisition of language (Berninger, Abbott, Jones, Wolf, Gould, Anderson-Youngstrom, Shimada, Apel, 2006; Hagtvet, 2010; Puranik, Petscher, & Lonigan, 2014; Piasta, 2016; Puranik, Petscher, & Lonigan, 2014). Compared to the acquisition of the language, the same survey didn't take place for writing. For this reason, the starting point of the study was to investigate how the development of written language takes place in pre-school children.

When we talk about "writing" we basically refer to the act of writing by hand. This is a process that involves the execution of a movement, called "graphic gesture", through which represent figurative or abstract symbols, which have the function of messages. From a functional and praxis point of view, writing is the result of a complex physical gesture, involving fingers, hand, wrist, forearm and shoulder. The act of writing can also be defined as a spatial, temporal and symbolic action. Thus the child imprints a trace of rhythms, forms and energies on the surface of the paper. It is a process which takes into account agreements that have origins from individual experience, therefore the evolution of literacy follows stages almost parallel to the chronological and psychological development of human beings (Henry, 2012). The purpose of this process is nothing other than communicating with the surrounding world. Learning and use of written language are based on dedicated functional and neurological systems, developed by adapting and modifying parts of the visual system to specific tasks, such as the recognition of letters and words (James, Engelhardt, 2012). These are processes that belong to man and that once learned are triggered quickly and automatically (Lonigan et al 2002; 2005; 2011; 2013).

In several developmental studies, it has been documented that in an alphabetic culture, most preschoolers are interested in the written language: they scribble, ask which are letters to write their name, study the structure of the sound of words and spontaneously try to find relevant letters to write simple words and names (Ferreiro & Teberosky, 1982; Hagtvet, 2010; Treiman, 1993).

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The process of translating from spoken to written language during exploratory writing seems to make children phonemically aware and expand their knowledge of the alphabetic code at a functional level where phonemes and graphemes are continually used to create meaning. These resources of the writing process presumably make invented writing like a bridge which connects to literacy, especially in a fairly coherent spelling, where the transformation from sounds to letters is relatively simple (Hofslundsen, Hagtvet, Gustafsson, 2016).

In the first years of school age, the child is not aware of the bonds of cause and effect that weave the graphic signs. For this reason, in the period of early childhood, the child can not voluntarily use these bonds. In practice, the graphic sign represents a part of what you want to indicate. The graphic gesture produced by the child is incomparably more linked to the physical object than to the word of the adult. This explains why the first graphic signs, which the child tends to represent, are more similar to the reality that surrounds him (Peugeot, 1985). All this is changing with the logical and intellectual development of the child. The experience gained over time allows the child to use the words learned using the various meanings. In today's reality the learning of reading and writing begins already within the family environment and continues in the scholastic context (Manetti, 2015).

### **Development of the graphic gesture**

The child is not born knowing already how to write letters, but growing up begins to be able to produce scribbles, which then evolve into drawings. This "archaic" form of sign acts as an "alternative graphic gesture" that prepares to writing. Drawing allows the child to develop and improve motor coordination, essential for learning to write. Initially, the execution of the graphic act turns out to be a random track that gradually turns into a conscious (voluntary) track, characterized by an organization of space and of motor skills. Only the latter is referred to as "writing" and turns out to be the last piece of a slow and progressive development, which originates from the scribble and evolves into drawing. Nevertheless, formally the learning of the writing process begins with the entry of the child into the school environment (Peugeot J., 1985).

With the first attempts of graphic production, the child acquires a set of perceptual and motor skills. These are skills that make up the baggage of useful skills to be able to acquire the writing process. This acquisition time is a typical stage of child development (Singer, B.; Bashir, A. 2004). The graphic activity in general, and in particular, the drawing depends on: the level of general psychomotority actually reached; from the awareness of one's body scheme (to adequately manage the graphic space) and from environmental stresses.

The acquisition of writing takes place through stages of development typical of the period from childhood to adolescence. These are stages that mark the gradual transition from scribble to drawing and finally to writing that continues to evolve even once learned. The first stage, which goes from 15 months to about 3 years, is known as the "scribble phase", in which the scribble itself represents the first imprint that the child leaves behind in the world. This type of graphic sign is initially performed spontaneously and impulsively, only for the pleasure of performing movements with the hand (Venturelli A., 2004). At the moment the whole body participates in the graphic activity and we can see the presence of a progressive improvement of the motor skills of the upper limbs. Gradually, the child begins to assume a stable position during the execution of the graphical act and there is a transition from a casual trace to a conscious trace. The track made is characterized by an organization of space and an attempt to control the gesture. The child begins to realize the limits of the sheet and strives not to come out of the margins, this happens above all in the activity of coloring. Fine motor skills start to be more organized thanks to eye-hand coordination. Now the eye is no longer limited to observing what the hand had previously produced, but guides the hand towards the directions of the sheet that most interest the child (Hofslundsen, Hagtvet, Gustafsson, 2016; Lena, 2006). In this phase an important element is acquired for the learning of writing: the prehension, that is an innate reflex that allows to challenge the graphic instrument. This rudimentary motor act evolves into a mature and functional act, allowing the child to gain greater confidence in carrying out the graph-motor activity. At the age of 3 years, the child is able to guide the instrument in the desired direction by means of the act of prehension. Also in this first phase, around 2 and a half years, an attempt to imitate the writing of adults, also called "scriptural writing", can be verified, which the child matures over time and then becomes concrete with the entrance to the elementary school. In conjunction with this the child begins to acquire a posture suitable for writing, characterized by high head, loose muscle tension and detachment of the bust from the supporting surface (Ferreiro & Teberosky, 1982; Lonigan, 2013; Sulzby & Teale, 1991; Tolchinsky, 2003; Whitehurst & Lonigan, 1998, 2001).

Subsequently, around 4-5 years old, appears the "pre-schematic phase", which turns out to be a moment of preparation for the achievement of the basic forms, called schemes (Venturelli, 2004). With the assimilation of the patterns, the figures represented by the child are no longer isolated, but are organized in relation to the general idea present in his mind.

So with the reorganization and consolidation of the learned mental categories, the shape and the dimensions of the objects start to assume a greater value.

In this phase, spatial collocation errors can occur, because the child can't catch distances, dimensions and symmetries. The concepts through which it operates at this time are those of order and closeness (Lonigan et al, 2011; 2013). Approximately 5 years old the child begins to execute some simple letters, copying them, for example, thanks to some visual incentives that surround him daily. It is precisely in this period that we witness the tiling of the letters to the shapes or drawings. This evolution takes place because the child discovers that there is a link between the letter and the sign. Only now can we refer to "pre-writing". The evolution of the process just described explains why the child first learns to draw and only then to write. From a perceptive-motor point of view, drawing is easier than writing because the presence of more elastic rules favors the progression of the graphic gesture (Venturelli, 2000, 2004). The evolution of the graphic gesture, as previously mentioned, continues until adolescence, a phase in which there is a change in forms and their greatness.

It is need to remember that the learning environment of children contains important characteristics: the literacy activities in which parents and children engage, the quality of parents' interactions with children and the materials that children have available for learning. For this reason, children who were growth in low context often have worse performances than children who have experienced environments characterized by strong decline and high stability and children who have experienced moderate environments (Hamilton, Hayiou-Thomas, Hulme & Snowling, 2016; Lonigan, Phillips, Clancy, Landry, Swank & Assel, The School Readiness Consortium, 2015; Piasta, 2016; Rodriguez & Tamis-LeMonda, 2011).

### **Development of early writing skills**

In this study, we tried to examine the typical development of written language from the first years of life up to entry into primary school. Specifically, we focused on the transition from scribble to drawing, eventually arriving at pre-writing. The initial intention was to understand if there is a continuity from learning the graphic gesture to learning the written language. Which to be acquired requires the mastery of some basic skills, which are specifically called prerequisites. Some of these skills are: an adequate development of the nervous system, the correspondence between sound and sign, perceptive capacity (useful for the recognition of letters), spatial orientation, knowledge of the body scheme, defined laterality, the development of motor skills. end, eye-hand coordination and motivation. In addition, there are factors such as age, gender, socio-family conditions, motivation and fine motor skills, and factors such as phonological awareness that influence writing (Pinto, G., Bigozzi, L., Accorti Gamannossi, B., Vezzani, C., 2012).

When we speak of phonological awareness we mean the ability to perceive and recognize the phonological segments (syllables and phonemes). The phonological path plays the fundamental function of a bridge, connecting the oral language and the system of written signs. Concerning the link between phoneme and grapheme we can refer to a theoretical model, which describes the functioning of reading and writing, that is the model of Coltheart et al (1993; 2001), according to which there are two ways or processes basis of the skills of recognition and production of the written word. The first path is phonological or sublexical, which allows the recognition of the word through the segmentation of the graphemes, the association between grapheme and the corresponding phoneme, and the reassembling in phonological form of the word (Scalisi, Pelagaggi and Fanini, 2003). Therefore, at the base of learning the skills of reading and writing there are three components connected to each other: spelling, lexical and phonological (Frith, 1985).

For the practical realization of the writing process are required very rapid and precise motor actions, characterized by frequent changes of direction and by a sequential organization over time. The main movements involved in the programming and physical execution of the graphic gesture are: Engraving and Inscription (which allow each single letter to be made with harmonic movements of the hand) and Progression (which allows progress in the production of words and phrases with horizontal scroll movement). In order to be able to perform the movement of progression is fundamental coordination between fine movements, advancement of the wrist, forearm and shoulder. The realization of the graphical act is influenced by motor skills that are acquired as the age progresses (Pizzi, 2007). These motor skills can be: the correct position of the body and the arm in relation to the graphic plane; the progressive independence of arm-trunk, hand-arms and fingers; global and segmental relaxation of the shoulder, arm, wrist and hand; the organization of the gesture; the ability to control the gesture; the prehension; oculo-manual coordination; the control of the object used to write (this is possible through the pressure exerted on the object) (Lonigan et al 2002; 2005; 2008). The graphic gesture turns out to be the most precise and complex fine motor action that man can learn and do during his development.

To perform this gesture, a motor order must start from our brain, which simultaneously activates all the sectors of the cerebral cortex (Longcamp, 2006). Because of its importance, learning of writing is fundamental for the development of the child. It is a skill that is not innate or genetic, but that should be taught gradually.

Being an ability that we are not genetically predisposed to, about a third of our brains are activated when we write by hand (the same does not happen when we write on a tablet). During the course of a graphic activity, much of the memory is involved, being very complex. The writing process, especially in the initial phases, represents a great cognitive burden of working memory. Maintaining and processing information during cognitive tasks are tasks that require activation of working memory (Henry, 2012). The latter, is not the only type of memory that influences the writing process, but mediates the relationship between the sensory memory (the stimuli coming from the senses) and the long-term memory. Through this process the information received from the external world is compared with the knowledge stored in the long-term memory and inserted into the short-term memory, where it will be processed by the working memory and then stored in long-term memory (storage of knowledge that can be recovered if necessary). In the literature it is stated that there is a relationship between the processing speed of an information and the working memory, which would be influenced by the type of information and in turn would affect the performance of the individual (Fry and Hale, 1996). This concept allows us to find a connection with the execution of writing, since, when the child puts the pencil on the sheet and begins to write, he recovers the knowledge necessary for the execution of the task. For the child, writing is not a simple and spontaneous process, rather it is the result of uncertainties, trials, errors and even choices to be made. The writing skill learned is the result both of the maturity of the individual and of the experience obtained through the practice exercise. Writing is such a complex process that it requires the activation and coordination of different cognitive and linguistic skills (McCutchen, 2005; Scott, 2005; Singer & Bashir, 2004). With reference to this, it is interesting to pay attention to the problem solving skills that the child develops. This is the child's ability to solve writing tasks, it is related to the learning process in general and in particular written language. When problem solving skills are used, a sequence of cognitive operations is carried out, at the end of which a solution is reached, which turns out to be unknown until then (Sternberg, 1998). Specially at the beginning, writing is a complex situation that can't be solved by the automatic application of already known or instinctive procedures. So the child who approaches for the first time to writing does not yet have the necessary knowledge to write. It is possible to conceptualize the writing process as an active and dynamic system, comparable to a problem solving process. The search for the most appropriate individual strategies may be the most valid explanation to understand why children are faced with various stages of graphic development and the use of pseudo letters or the simulation of adult writing (Hagtvet, 2010; Lonigan, Puranik, 2011; Treiman, 1993).

### **To the concept of early literacy to formal learning of reading and writing**

This perspective has brought back to the concept of emerging literacy, that is the set of skills and knowledge prior to the formal or scholastic learning of reading and writing and which contribute to its realization. Based on this, scholars have created a model of the written language of pre-school children (Pinto G. et al., 2008), which affirms the concatenation of emerging literacy (phonological competence and textual competence) and notational knowledge. The different components of the model have a different predictive value, as the notational knowledge predict the initial ability to write words; while phonological competence, in association with the notational one, predicts the writing of numbers and non-words. Thus, preschoolers demonstrate that they have an "archaic" form of problem solving and possess the ability to process forms of writing similar to conventional orthography. Nonhomophone errors in first writing appeared to be predicted by emerging literacy skills, while homophone errors were not predicted by any emerging literacy variable in early or advanced writing (Puranik, Petscher & Lonigan, 2014).

The results of some studies show that notational proficiency is a predictor of early spelling skills and that the influence of phonological awareness has only a mediated effect on notational proficiency. So the early spelling correctness is foreseen by a notational factor, that is by a sensitivity to the signs in relation to the sounds in the written code. This would lead to affirm that in order to learn the writing of words, it is necessary to develop a sensitivity to the function of these signs (Pinto, Bigozzi, Accorti Gamannossi, Vezzani, 2012).

Referring to today's literature, it emerged that children who are able to write their name correctly or partially, can use this knowledge to try writing words (more complex writing activity). This leads to confirm that children, preschoolers, unknowingly possess the general and specific knowledge of their writing system. Furthermore, the child's writing competence is a slow (reversible) dynamic process that emerges during the preschool period (Tolchinsky, 2003). The child is experienced as a writer even before his entry into kindergarten. Through the knowledge gained through experience, he tries to reproduce his own name and tries to write words connected to the reality that surrounds him, improvising an invented orthography.

The graphic knowledge and writing skills of preschool children increase and become more stable between 3 and 5 years (Lonigan & Puranik, 2011). universal and specific knowledge of the written language.

The basis of this research was the recent studies conducted on this topic (Ferreiro & Teberosky, 1982, Gibson & Levin, 1975; Sulzby, 1989; Sulzby & Teale, 1991; Tolchinsky, 2003; Whitehurst & Lonigan, 1998, 2001; Puranik, Petscher & Lonigan, 2014), but in particular those conducted by Lonigan (2011, 2013), from which it emerged that writing develops according to a linear sequence and also its teaching should take place sequentially. The aim of the present study was to investigate the learning process of written language in preschool children. One of the theoretical foundations taken into consideration for this objective was the one on emergent literacy, which suggests a line of continuity from the graphic gesture to the literacy. For this reason, the hypothesis formulated was that the development of graphic skills follows a linear and age-dependent trend. The intent of the study was not only to deepen the scientific knowledge on the transition from the production of scribbles to writing, but we also tried to start to lay the foundations for a theory on learning the written language, defining an evolutionary continuum. To be able to investigate the development of graphic skills (passage from scribbles to conventional orthographic shapes), have been used a number of pre-fictional tasks built ad hoc (Lonigan et al 2002; 2005; 2011; 2013).

## Method

### Procedure and Participants

In this study, a cross-sectional research design was used to investigate the development of graphic skills in children aged 3 to 5 years.

The research project involved: 461 pre-school children, residing in Sicily, of which 166 of 3 years having a mean age of 43.4 months ( $ds = 3.86$ ; range = 37 to 47 months), 175 of 4 years who have a mean age of 54.56 months ( $ds = 2.58$ ; range = 50 to 58 months); 120 of 5 years who have a mean age of 61.01 months ( $ds = 1.6$ ; range = 60 to 70 months). The participants in this research were selected from 31 public and private kindergartens, present throughout the Sicilian territory, in order to guarantee a group socio-cultural heterogeneity.

### Struments

Pre-fiction trials have been specially constructed for the research. Specifically, these are tests of: recognition of letters, writing of names, writing words, description of drawings, writing sentences. The items were administered individually to all children in the same order and completed in a single session of about 15/20 minutes, following deliveries and deadlines. The preliteracy's tests built specially were: recognition of letters, which provided for the recognition and writing of the letters "A", "B", "C", "D", "L", "M", "O", "P", "T", "V", on a white sheet positioned horizontally, after the child has had the opportunity to view them; writing the name, provided that the child wrote his name on a white sheet placed horizontally; writing words, foresaw writing a list of pre-established words ("DOG", "BALL", "APPLE", "MILK", "SUN", "KISS"); description drawings, provided for the description and representation of a drawing, shown previously to the child; writing sentences, providing repetitions of sentences and transcription on the sheet of these.

The score assigned to the tests varied according to the delivery given to the child. For each test, special scores have been assigned, for the test of: "writing of letters" scores foreseen from 0 to 2 (0 - corresponds to absence, 1 - poorly formed letters or inversions of letters, 2 - perfectly written letter); "Writing name" predicted scores from 0 to 1 (0 - corresponds to absence, 1 - presence of characteristics: linearity, segmentation, simple characters, orientation from left to right, presence of the first letter of the name, complex characters, random letters, more letters of how many for the writing of the name); "Writing words" scores from 1 to 7 based on how the child responds; "Design description" predicted scores from 0 to 1 (0 - corresponds to absence, 1 - presence of each of the following characteristics: linearity, segmentation, simple characters, left-to-right orientation, complex characters, random letters, invented writing); "Sentence repetitions" predicted scores from 0 to 1 (0 - corresponds to absence, 1 - presence of each of the following characteristics: linearity, segmentation, simple characters, left-to-right orientation, complex characters, random letters, invented writing).

## Results

To understand the differences in performance in the different tasks performed by each different age group, the data were examined using a variance analysis. It immediately emerged that graphic skills grow with age, as there were significant differences related to tasks in the three age groups. Specifically, ANOVA highlighted a significant effect for letter recognition items ( $F [2.87] = 14.36$ ;  $p = 0.00$ ), writing name ( $F [2.87] = 4.355$ ;  $p = 0.01$ ) and writing words ( $F [2.87] = 14.79$ ;  $p = 0.00$ ).

In addition, Bonferroni's post hoc indicated significantly higher scores in the children's tests ( $p = 0.01$ ) of 5 year olds ( $M = 13.69$ ;  $ds = 5.67$ ) compared to 3 year olds ( $M = 9.36$ ;  $ds = 5.34$ ). The results confirm the suitability of the preliteracy's tests used, as they have a good internal consistency and an adequate Cronbach's alpha ( $\alpha > 0.60$ ).

Finally, using the Guttman scale, it was possible to define a linear sequence (evolutionary contiguity) of the development of writing skills in pre-school children. From the data of the study it emerged that the process of acquisition of the writing process is more understandable, if understood as an evolutionary continuum with its origins, in the first life experiences of a child, rather as a phenomenon that begins with the start of the schooling. The ability to learn the written language follows a linear evolutionary sequence as the child has knowledge of the written language already at an early age (such as the orientation from left to right and / or linearity). As a consequence, the data collected have confirmed that children, during the preschool period, possess a great deal of knowledge about the rules underlying the written code. This inventory of knowledge is influenced by the increase in age, significantly affecting the learning of increasingly complex literacy tasks.

### Conclusion

This study allows us to notice that children before knowing how to write in a conventional way, try to communicate through scribbles, which perform the symbolic function of writing. The child experiences an emerging learning phase, in which he will use various strategies to learn the written language. The child's writing skills depend on, and vary, according to their problem solving skills and the demands of the task to be performed. The aim of the study was to investigate the development of written language learning in pre-school children, using the literature on emergent literacy as a theoretical foundation (Lonigan, Purpura, Wilson, Walker, Clancy-Menchetti, 2013; Piasta, 2016).

This theoretical foundation suggests a line of continuity from the graphic gesture to the literacy and allows the hypothesis of the research to be developed: the evolution of graphic skills seems to follow a linear and age-dependent trend. The data obtained from the research confirmed the hypothesis, highlighting that children in the pre-school period already have different knowledge on the basic rules of written language. The inventory of acquired properties as age increases significantly affects the learning of increasingly complex literacy tasks. The learning of written language follows a linear continuum, characterized by a set of knowledge on the written language already at an early age (for example the orientation from left to right and / or linearity). At 3-5 years most of the children can graphically create some letters of the alphabet and to write their name almost mechanically. In carrying out this task they find themselves concentrating on the characteristics of writing subjectively most salient visually, such as the initial of the name. In preschool age, the child often demonstrates that he possesses advanced knowledge of his name in relation to his real writing skills (Puranik, Petscher, & Lonigan, 2014; Rodriguez & Tamis-LeMonda, 2011).

The research has shown that these children frequently write letters of the alphabet such as "A", "T" and "B", but particularly the letter "O". The rudimentary form of the letter "O" is one of the first that appears already in the phase of the scribbles.

Therefore, among the knowledge of prescription possessed by the child, in these first years, there is the graphic acquisition of the composition of his own name and some letters of the alphabet. The graphic features of preschool age are linearity, segmentation, presence of simple units and orientation from left to right. The development of writing skills seems to be stimulated by factors such as cognitive maturity, increased exposure to the press, early writing activities, family influences, natural progression of learning and advanced reading skills (Furnes, Samuelsson, 2010; Lonigan, & Phillips, 2016; Sparks, Patton, Murdoch, 2014).

The research is still at the first step, others will follow, which will allow us to fully understand the evolution of writing skills and demonstrate the importance of a progressive and congruous development to the age of the child. By reporting the results obtained it is possible to state that: graphic skills grow with age; there are significant differences related to the tasks in the three age groups (3, 4, 5 years); specifically, ANOVA highlights a significant effect for the tasks of recognizing letters, writing one's own name, writing words; the Bonferroni's post hoc indicates significantly higher scores in tests carried out by five year olds children; the tests used in the research have proved suitable, having a good internal consistency and an adequate Cronbach alpha, equal to  $> 0.60$  (greater than zero point sixty); and finally with the use of the Guttman scale (1950) it was possible to define a linear sequence of the development of writing skills in preschool age. The repertoire of knowledge possessed by the child, as the age increases, significantly affects the learning of increasingly complex graphic tasks, with the passage of time. This shows that writing skills are learned by following a linear evolutionary sequence.

## Discussion

The great interest generated in the last twenty years by the theme of the development of writing skills has arisen from the pervasive presence of writing in everyday contexts and from its use as a means of communication. This is because children start their literacy course even before entering nursery school.

For this reason the basis of almost all the research on this topic is the theoretical foundation of emerging literacy, which is one of the factors contributing to the development of reading and writing (Pinto G., Bigozzi L., Accorti Gamannossi B., Vezzani C., 2009). In the last few years it has emerged that children begin to write early, mainly thanks to the solicitation of their interest. The solicitation can occur through the use of material to enable contact with the sheet surface; the appropriate posture; the tools suitable for the realization of the pencils, pastels, etc. (Ferreiro & Teberosky, 1982; Sulzby & Teale, 1991; Tolchinsky, 2003; Whitehurst & Lonigan, 1998, 2001; Lonigan, 2013). Encouraging children to scribble or write during game activities is a great benefit, preparing them for the future conventional writing process (Boscolo P., 2006). For the acquisition of writing skills, it is important to "sustain", "support" and "incite" all those children who are not really motivated to learn, and who may therefore be disadvantaged in developing the skill over others. (Bus & Out, 2008; Gillanders & Jimenez, 2004). To teach child how to write his name can be a form of solicitation to acquire the specific forms of some letters. Therefore the writing of one's own name can be the means by which it is possible to learn the first relations between letter-sound and the conscious realization of the name (Treiman R., Cohen J., Mulqueeney K., Kessler B., Schechtman S. 2007). In over time, it has been shown that a close correspondence between letters and sounds ensures the ability to recode children at a relatively early stage in transparent spellings (Furnes B. & Samuelsson S., 2011).

Some studies support strong predictive relationships between emerging literacy skills assessed in preschool and conventional literacy skills assessed after entering kindergarten (Furnes & Samuelsson, 2010; Lonigan & Shanahan, 2010). Furthermore, it has been shown that children with well-developed emerging literacy skills in preschool are those who learn to read earlier and who in general will have better academic skills (Sparks, Patton and Murdoch, 2014). In contrast, children who have difficulty learning to read have a substantial and sustained risk of having ongoing problems in general academic skills. This allows us to understand that improving the weaknesses in the early skills of preschool students and altering their learning trajectories is important (Lonigan & Phillips, 2016).

## Future Perspectives

Modern literature has tried to understand the processes underlying the transition typical of the development of writing skills, in order to allow in the future to face and clarify the atypical development of this ability. This work demonstrates that there is still a considerable distance between the research on writing theory and that on the practice of it, consequently leads to reflect on the distance between theoretical interests and the reality of learners. Modern literature has tried to understand the processes underlying the transition typical of the development of writing skills, in order to allow in the future to face and clarify the atypical development of this ability. This work demonstrates that there is still a considerable distance between the research on writing theory and that on the practice of it, consequently leads to reflect on the distance between theoretical interests and the reality of learners (Lonigan, Puranik, 2011).

Regarding the directions of future research, be expected the use of the Guttman scale (1950) to determine the possibility of defining an evolutionary continuum for learning written language. Furthermore, at the current state it would be necessary both for the teaching of writing and for research in this field, a theory on the development of the writing process that provides a set of essential criteria based on the most recent acquisitions of psycholinguistics, cognitive psychology, rhetoric and research on the composition of the written text (De Beni R., Cisotto L., Carretti B. 2001). In favor of this need, it would be useful to consider the close integration of the cognitive, social and linguistic-textual factors, so as to arrive at delineating a univocal idea of what is meant by "writing skills". This would allow the formulation of a single interpretation that would not allow doubts or misunderstandings on the issue. Moreover, it is still necessary to conduct studies that can help clarify the relationship between early writing skills and their meaning in terms of development for subsequent literacy, which will take place in primary school (Pinto, Bigozzi, Accorti Gamannossi, Vezzani, 2012; Puranik, Petscher, & Lonigan, 2014).

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