The emergence of writing: children’s writing during the pre-phonemic spelling stage.

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ABSTRACT
Learning to write is a central part of becoming literate. From an emergent literacy perspective, it is argued that learning to write occurs during the first years of a child’s life, fostered by experiences that permit and promote meaningful interaction with oral and written language. Data from a research study that took place in five kindergarten schools in the region of Achaia is reported. The early children’s attempts to write are in the center of this paper. Written samples by 57 pupils (aged 5;0 to 5;11), who were in the prephonemic spelling stage are analysed. During this stage even though the children have not discovered yet that letters (graphemes) represent sounds of speech (phonemes) they demonstrate a great amount of knowledge of what written language is and how it works. The results of the study suggest that writing acquisition occurs to some extent before formal teaching and children construct their knowledge about writing, starting from gross distinctions and gradually through experience they move to finer ones. The educational implications of the findings are also discussed. The main argument is that kindergarten school could help in the development of early literacy, and what is needed is an approach that starts from what children know and helps them to discover writing themselves.

1. INTRODUCTION
The purpose of this paper is to present data from written samples of kindergarten pupils who have not been taught to write formally. A vast amount of evidence in the last three decades has shown that children who are given appropriate opportunities and encouragement attempt to write long before schooling. Not too long ago, it was believed that a child should reach a specific age (that of entry to primary education) in order to understand the reading and writing process, which had to be taught in a prescribed fashion. This approach, referred to as reading readiness (Miller, 2000) underpinned our curriculum, which prohibited any literacy activities in kindergarten schools. Fortunately, under the light of recent research the new curriculum (introduced in 1998) encourages literacy activities in pre-school education, even though there is a lot of skepticismism from some colleagues.
From an emergent literacy perspective we see the acquisition of literacy behavior as a lifelong journey, which begins very early in a child’s life. I argue that learning to write involves mastering a diverse range of skills and understandings, and this process has no definite starting point. We are going to focus on written samples whose authors have not yet discovered the phonemic principle, which is that every letter represents a speech sound. We consider the prephonemic spelling stage as the roots of writing, the initial point of which children begin to unravel the mysteries of written language. For that reason the importance of this stage should not be underestimated. Gentry (1982) proposed the term “precommunicative” for this early writing stage. On the other hand, I propose children themselves believe that their own writing conveys a message and they can read what they have written when asked to do so, or they ask adults to read it.

The research presented here aims to describe the process that preschool children reveal within the context of written production, how they understand the characteristics of the writing system and what conceptualizations these children form of written text, even though their writing is deficient in comparison to adult standards of writing.

2. METHOD
In order to minimize the influence of school we collected data at the beginning of the academic year (November 2000). Our observation took place in two sessions, within a week’s time from one another. During the first, I informed them that the mayor of the city wishes to buy some toys for some children of their own age, which their parents could not afford to buy, but he does not know which ones they would prefer. He would be very grateful, if they could write their suggestions on a piece of paper. During the second session after hearing a relevant story they had to write a message, which a castaway wrote after his ship was wrecked and he had managed to reach a remote island. At the end of each session the children read their writing to the class.

3. SUBJECTS
We collected written samples from 71 kindergarten pupils, from four state and one private kindergarten school in different areas of Patras as far as the socio-cultural prestige is concerned. They were all native speakers of Greek and their age was from 5;0 to 5;5 with 5;5 being the average age. As far as the syllabus is concerned it was almost the same in all schools. A description of the subjects in terms of the area of the school and sex characteristics is presented in table 1.
<table>
<thead>
<tr>
<th>School Sex</th>
<th>Central city (Professionals)</th>
<th>Private</th>
<th>Middle class suburb</th>
<th>Mixed (middle/working) suburb</th>
<th>Working class outskirt</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>7</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>31</td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>7</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>15</td>
<td>13</td>
<td>11</td>
<td>11</td>
<td>71</td>
</tr>
</tbody>
</table>

Table 1: The subjects of the study

4. WRITTEN SAMPLES

The children’s pieces of writing were classified using a modified version of that used by other scholars (Ferreiro & Teberosky, 1982; Temple et al, 1993) in the following order.

<table>
<thead>
<tr>
<th>School Written sample</th>
<th>Central city</th>
<th>Private</th>
<th>Middle class</th>
<th>Mixed suburb</th>
<th>Working class</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drawing</td>
<td>1M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1M</td>
</tr>
<tr>
<td>Scribbles</td>
<td>1M</td>
<td>1F</td>
<td></td>
<td>1M, 1F</td>
<td></td>
<td>1M, 1F</td>
</tr>
<tr>
<td>Linear scribbles</td>
<td>1M, 1F</td>
<td>1M, 1F</td>
<td>1M, 1F</td>
<td>2M, 2F</td>
<td></td>
<td>2M, 2F</td>
</tr>
<tr>
<td>Pseudo-letters</td>
<td>3M, 1F</td>
<td>3M, 2F</td>
<td>1M, 2F</td>
<td>1M, 1F</td>
<td>4M, 1F</td>
<td>12M, 7F</td>
</tr>
<tr>
<td>Actual letters</td>
<td>6M, 6F</td>
<td>1M, 3F</td>
<td>1M, 2F</td>
<td>3M, 3F</td>
<td>3M, 3F</td>
<td>14M, 17F</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>11</td>
<td>57</td>
</tr>
</tbody>
</table>

Table 2: The written samples. M = male, F = female

The vast majority of the kindergarten pupils under investigation (N=57, p.c. 80.3%) have not yet discovered the phonemic principle. They seem to ignore that in alphabetic writing systems every letter-grapheme represents a speech sound-phoneme (phonological awareness). However one in five (N=14, p.c. 19.7%) seems to have awareness of that basic principle to some extent. This fact, even though it is beyond the scope of this paper, is quite revealing for the way literacy is acquired.

Only one child refused to write and drew his favorite toys. Two others made scribbles, in particular circles and ovals. On the other hand, these samples seem to be highly dynamic, and demonstrate an exploration of page space and the possibilities of written materials. In the next three stages, that of linear scribbles, pseudo-letters and actual letters written in a random fashion, it is more clear that children try to experiment with writing. As they explore the limitations within which a sign might vary they demonstrate more control over their hand movements. Linear scribbles although not containing any letters or letter-like shapes are on a horizontal plane. It is clear that they are attempting to represent what they see and what they know about real life. These first efforts, as suggested by Clay (1975), are “gross
approximations" of what later will become more refined. The pseudo-letters display the vertical and horizontal lines, circles, semi-circles and arcs which are found in letters but also other squiggles and they are not recognizable as alphabetic letters and, finally, the actual letters, though not corresponding with the spoken message, were still used by the children to describe the message.

Nevertheless, children are aware that print carries a message, they know that writing differs from drawing pictures, although some of their scribes may not look like letters as we know them. That is why we think that these early writing attempts lay an important foundation for their concept of the pattern and function of the written world. Moreover, it has been stressed that the children who do not get the opportunity to experiment with these early attempts at writing, are at a huge disadvantage (Culligan, 1997).

5. DISCUSSION

Clay (1975), to whom we owe the term emergent literacy, selected thirteen “principles”, which characterize the physical properties of writing and may be observed in the writing behavior of young children. We are going to use these principles as a tool to analyze the written samples under investigation. These principles, which simply describe what emergent writers do, show that children have observed and understood to some extent a wide range of features of print production.

When one glances at the first attempts of writing by five or six year old children (s)he will hardly notice any letters or words. On the other hand, it is clear that they are not drawings. How do we then explain samples like these? A second, more careful look will reveal that these marks do contain many of the rudiments of writing and for this reason the children themselves characterize these as “writing” and clearly distinguish them from drawings. As Ferreiro (1984) argues, children usually move the letters outside the limits of the drawing in order to maintain the distinction between the drawing and writing. As the perceptual theory of learning (Gibson & Levin, 1975) argues at a first stage children make gross distinctions of the environmental things and gradually through experience they move to finer ones. Thus, children start to learn about written language by attempting first the whole (written lines) and only later do they attempt to write letters.

Furthermore, many principles of Clay’s list are obvious even in those first attempts to write, namely the recurring principle, the linear and page arrangement principle, and the space concept.

Writing is arranged in rows across the page and if someone squints his/her eyes and looks at a written page, (s)he will notice that writing seems to be composed of loops and tall sticks repeated over and over again. This
seems to be the explanation why children’s first attempts to imitate writing often have this repetition of loops and sticks or circles. It is obvious that if someone sees such writing from a distance (s)he will hardly guess that it is not real writing. Garton and Pratt (1989) argue that the “ball and stick” writing shows that children who use this style have extracted two of the main features of the printed form, namely that many letters are made of a straight line and a curved line.

From an early age, most children know that writing in Greek goes from left to right and from top to bottom. Moreover, it is obvious from that early stage that they are aware that we write in lines (linear and page arrangement principle). Temple et al (1993) argue that it is very difficult for children to acquire directionality, as this skill demands the change of perspective children are familiar with. These difficulties could explain to some extent why some children write in boustrophedon pattern (left to right and then right to left).

According to the space concept principle, children use a space, or presumably some other symbol to segment writing. Even though leaving spaces is a highly abstract procedure for children to apply, partly because in speaking there are not clear spaces between the words, some children show the knowledge of that principle.

With repeated writing practice and observation, children produce marks that resemble the writing they see in the environment. In children’s writing at this stage we can see not only letters, but also geometrical schemes, flags, numbers, and “drawings” that could stand for letters in an imaginary alphabet. Gradually children learn the acceptable letters of the alphabet and write strings of them.

There are four more principles of Clay’s (1975) list, which I would like to mention at this point.

The sign concept: A sign carries a message but the sign is complete in itself and not related to a way of representing alphabetically the name signified by the sign. This is the case when children write their names or other well-known words logographically.

The message concept: Children understand that messages can be written down but there is no correspondence between what is written and what the message is claimed to be.

The flexibility principle: Children experiment in creating new symbols by repositioning or decorating the standard forms.

The generative principle: Children seem to be aware that writing consists of the repetition of the same letters and they use a lot of combinations in their attempts to write. This is obvious in cases in which children use the repertoire of their names’ letters to produce new words.
Finally, some children reverse the directional pattern and produce mirror image writing.

The first real word children seem to learn to write is their own name. The child is the center of his/her word and the pleasure children experience in writing their names is well known to all of us who have been involved in children's education. Their confidence in their ability to write their names provides a sense of security and a crucial point in their journey to investigate writing. They learn to write their names by memorizing by heart a string of letters. A huge amount of information about writing is learned by learning their names. The most important thing though is that by writing their name, children begin to construct knowledge about what a word is. Ferreiro and Teberosky (1975) argue that the child's own name provides the first real challenge in his early hypotheses about the relation of writing to language. Moreover, children are forced to reconstruct their previous hypotheses about spelling, such as the required number of letters for words and, finally, the letters of their name become the standard repertory through which children will discover other letters.

6. CONCLUSION - EDUCATIONAL IMPLICATIONS

Children do not wait for schooling in order to use writing in appropriate ways. It seems clear that they demonstrate a commitment to writing, understand when and why so much writing is used, and they have some knowledge of how writing is carried out. Even though their knowledge could not be considered complete and they are unable to communicate conventionally, they demonstrate an amount of knowledge that should not be ignored. This knowledge has been achieved without conventional instruction. It has been achieved by observation, interaction and experimentation mainly in the home environment. Even though a vast amount of evidence has stressed the contribution of the home environment to the development of literacy (Clark, 1984; Snow et al, 1991; Weinberger, 1996) the role of kindergarten school should be not underestimated. Whatever the importance of parental role in the development of early literacy is, we must bear in mind that teachers are the professionals and that kindergarten school could be the ideal place for a child to be introduced to writing and reading. Kindergarten school can help children among other things to investigate the print in the environment and its function, to discover the components of writing (i.e. the letters), to encourage them to write and improve their writing skills (i.e. spelling and handwriting). The happiness of the play compound with the given willingness of children to discover all the secrets and mysteries of the world, as well as the written world, could be the foundation on which literacy can be built.
Writing is a natural event in a child’s development and it could be integrated in playing games activities. If we view writing as a new and complex form of speech and as a task that is necessary and relevant for life, we could understand the reasons why some scholars (Montessori, 1965; Geickie & Raban, 1994; Campbell, 1996; Reynolds, 1997) have proposed that writing and reading should be taught in kindergarten. I think that what is important is the way literacy is introduced in kindergarten schools. Children can easily learn to read and write with teachers who understand the factors that influence reading and writing and can organize rich literacy environments that support their learning. A rich environment includes reading and writing materials that are accessible and relevant to children, such as various sorts of books, magazines, newspapers, displays of children’s writing. Lined and plain paper, empty booklets, envelopes, pencils, crayons, markers will prompt children to eyeing up and work with these writing instruments. Opportunities for writing telephone messages, shopping lists, menus, medical prescriptions, receipts, coupons could be embedded in playing experiences. Even the computer can be used for literacy aims (Pontecorvo & Zucchermaglio, 1991).

The teacher can observe children and support their development in a discrete but, also, effective way. While not directly and didactically teaching writing, there will be a need for teachers to engage in providing, modeling, interacting and talking about literacy. Teachers need to understand that their role is to encourage children to write, even if what the children write on paper is not what adults consider “proper” writing. In other words, teachers should allow children to express their ideas freely on paper and not be concerned with whether what children have written is correct or not. The children, when involved in writing activities, will face difficulties that will be solved through discussion in the class or individually with the teacher.

Unfortunately, as far as I can judge through numerous seminars and visits to kindergarten classes in the last three years, the teachers, with only a few exceptions, demonstrate a rather inadequate knowledge of the emergent literacy theory. They do not appear to understand the reasons that underlie the change of the curriculum and they do not seem to promote literacy activities nor do they teach written language as a sequence of separate skills, which is the same way they have been taught writing in elementary school. What is of crucial importance though is the need for further training. A kindergarten schoolteacher should act as a researcher. First (s)he has to investigate his/her pupils knowledge about written language and then to organize an environment, such as I described earlier, and promote appropriate literacy activities for each team of pupils.
REFERENCES
Figure 1: Anna (4;4) The precursors of writing

Figure 2: Andreas (4;9) His marks resemble the acceptable letters
Figure 3: Despina (4;8) Her writing consists of acceptable letters, written in a random fashion, without any correlation to sounds.