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AUTHOR Davies, Anne
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ABSTRACT

The relationships between the understandings children develop while learning the written form of their own names and those developed while learning other words were examined in a study. Twelve children, aged three, four, and five, were selected. The study involved three tasks which examined the subjects' expertise with letters, numbers, and the written form of their own names, the understandings they held relative to their own names, and with regard to two other words. Results indicated that children did not treat their own names as unique words in terms of letter order and word size. This study calls into question the view that learning the written form of one's own name is a unique case of written language learning. It would appear that when children are able to write their own names in standard form they may also be able to exhibit very sophisticated understandings about words in our written language system. (Eleven references and six figures are appended.) (Author/SKC)

Children's Names:

Landmarks for Literacy?

Anne Davies

University of Victoria

Running Head: CHILDREN'S NAMES

Abstra

This study examines the relationships between the understandings children develop while learning the written form of their own names and those developed while learning other words. Twelve children, aged three, four and five, were selected. The study involved three tasks which examined their expertise with letters, numbers and the written form of their own name, the understandings they held relative to their own name and the understandings they held with regard to two other words. Children's own names were not treated as unique words in terms of letter order and word size. This study calls into question the view that learning the written form of one's own name is a unique case of written language learning. It would appear that when children are able to write their own names in standard form they may also able to exhibit very sophisticated understandings about words in our written language system.

Names appear to be important to children and learning one's own name, in written form is a unique event. Clay (1975) asserts that it is often the first written word learned. Teachers of young children 'teach' the written form of children's own names as a primary activity. Is it purely for ease of identification of various belongings or is it a unique and important literacy milestone for children?

Ferreiro and Teberosky (1981, 1982) have explored the manner in which children construct their knowledge of written language. Ferreiro and Teberosky state that "the child does not bring into play a special learning technique", but "goes on to discover the properties of symbolic systems through a long constructive process" (Ferreiro, 1981, p. 6) Once a child has a theory, contradiction may lead the child to construct another theory that would take the new features into account. In this way, a few examples can raise the child's understandings to a new level (Duckworth, 1979). It would appear that as children learn the standard form of their own name, they establish understandings that incorporate their new knowledge.

Research in the area of children's early writing emphasizes the importance of meaning (Bissex, 1980; Graves, 1984; Harste, Burke & Woodward, 1983, 1981). Children's initial writing attempts appear to be meaning-conveying. If children are using print to convey meaning then an examination of the words children are interested in writing will provide researchers with clues as to the acquisition of children's understandings of letter order and word size. One of the words children are interested in

writing is their own name.

In their book, Literacy Before Schooling, Ferreiro & Teberosky (1982) investigates the development of children's hypotheses regarding reading and writing, including children's developing concepts regarding their personal names. Ferreiro & Teberosky view the child's name as the first stable written string and the prototype of subsequent writing. The name is endowed with meaning. Ferreiro & Teberosky (1982) suspect that it is a "typical middle class cultural pattern" to provide children with early opportunities to write (and read) their names (p.213). This ordering may be purely a culturally influenced event. Clay (1975) states that "it is only a rare child that learns any other words before attempting to write some of his own name" (p.44)

Ferreiro & Teberosky's investigations were, in part, designed to illustrate the hypotheses children hold when reading their names. Children were asked to write their names and if unable to produce the graphic characters they were offered moveable letters, if they could neither write nor compose their names the researchers tried to see if they could recognize their names when made for them. Once a name was produced, it became the basis for a series of manipulations. Portions of the written string were covered and various transformations were made. The children were involved in a discussion designed to reveal the basis on which decisions were made as to whether a written string was their name Ferreiro & Teberosky (1982) found that the children appeared to go through different stages which illustrated some of the understandings that

children have regarding written language. The changes reflected the changes in understanding that may occur as children approach a more adult-like understanding of written language. The children at each level or stage described by Ferreiro & Teberosky used increasingly sophisticated hypotheses. Children in the first stage appeared to find the transformations irrelevant. Children in the final stage rejected the transformations but tried to read them. The argument for rejecting the transformed string was always that the original word had been modified and another word created which was readable but different from the first (Ferreiro & Teberosky, 1982).

It seems clear that the children's views of their printed name as a stable unit (with a fixed order and number of letters) may signal important personal literacy milestone. While events surrounding children's development of stable written forms of their names have been featured in recent research (Clay, 1975; Ferreiro & Teberosky, 1982, Harste, Burke & Woodward, 1983; Hiebert, 1978), they have not been the primary focus. The present study focuses upon the children's understandings of letter order and word size when they are beginning to learn to write and read their own names. By studying the knowledge three, four and five year olds hold regarding their name and its letter order and word size, insights into children's early written language development may be gained.

Description of Study

Subjects: This study focused on twelve children, 6 males and 6 females, between the ages of three and five years. All twelve children were attending a daycare centre which serviced primarily low income, single parent families in Victoria, B.C.

Procedures: The children were engaged in three tasks. They are described below:

Task 1: The children were asked to print their name, categorize symbols as letters, numbers or other, select their own name from a list of four words, and select whether they preferred their name written in upper or lowercase.

Task 2: The children were presented with their name and then, while the children observed, letters were deleted, added or underwent a change in order. They were then asked, "Does this say (child's name)? Eight manipulations were made. The second part of this task were similar except the manipulations were made prior to meeting with each child. During both parts the children were encouraged to comment.

Task 3: The manipulations of Task 2 were repeated except the words, instead of being the child's name, were a word the same length as the child's name and another common word. As in Task 2, the manipulations were completed once in view of the

child and once unobserved by the child.

The order of the tasks was counterbalanced with a view of preventing the possibility that the findings might be a result of "significant encounters" of children during the course of the tasks.

Results

Task 1

The eight younger subjects were least able to write their own name in standard form. Four children were able to write their names in standard form.

Those children unable to write their own names in standard form were not consistent in their ability to recognize their names in a list of four words. Three were able to select their names and four were unable to do so. Children able to write their own names in standard form were able to select their names from a list of four other words.

In general, the children appeared to be confident about their ability to write their own names. Ten of the twelve children stated that they were able to write their name though only four children made their name in standard form and only eight used letters to make their name. Six of the eight children who were not able to write their names in standard form stated that they were able to write their own name, yet none of these six children was able to do so.

Four of the eight children in the first group use symbols other than

letters with which to make their names. Three of these same four children stated that they were able to make their own names. Of the four children in the first group who stated that they were able to write their name, only three used letters. Those children able to write their names in standard form all stated that they were able to write their names and all used letters.

To provide some indication of the children's general ability to distinguish among some written language symbols, they were asked to sort a collection of letters, numbers, and other symbols into the appropriate categories. The results display the tendency for the older children to be able to distinguish correctly among letters and numbers than the younger children. The youngest six children were unable to sort the symbols correctly and the oldest six children could do so. Of the eight children unable to write their name in standard form, six were unable to sort the symbols correctly. All of the children able to write their names could sort the symbols correctly

Task 2 and 3

As outlined earlier, Task 2 required the children to make decisions with regards to the letter order and word size of their names. However, Task 3 required the children to make decisions with regard to letter order and word size in reference to two other words. Task 2 differed from Task 3 in order that comparison could reveal whether the children treated their names as unique words. It was expected that the decisions made by the

children during the course of the task would reveal some of the children's understanding about letter order and word size. Further, such decisions might give some indication as to whether or not the children formed understandings about letter order and word size. Further, such decisions might give an indication as to whether or not the children formed understandings unique to their name and formulated other, different understandings about words in general.

Task 2 and Task 3 required the children to observe all the manipulations of letter order and word size as they were being made. Both tasks required that the same manipulations be made but that the children should see only the product of the manipulations. This was intended to determine whether they were basing their decisions on differences in letter order and word size between the original word and the manipulated word or as a result of viewing the manipulations themselves and deciding that words should not be handled in that manner.

There were four children who generally insisted on a specific letter order and word size for their names and of these, all four tended to insist on a specific letter order and word size for the other words. These four children were the same four children able to write their in standard form. Eight children did not insist on a specific letter order and word size for their names and of these, seven did not insist on a specific letter order and word size for the other words.

The first two bracketed columns of Table 1 show the number of instances the children identified a manipulated word as being the same as

the unmanipulated word even though they had observed the change being made. The figures in these two columns are totals for all manipulations of letter order and word size. These bracketed figures refer only to observed manipulations.

Insert Table 1 about here

Children responded to manipulations of their names in much the same way that they responded to manipulations of other words. Those children unable to write their names (the first group) had the greatest range of difference. The second group, those able to write their own names, differed less between their name and other words.

The second two bracketed columns of Table 1 list the percentage of INCORRECT responses between manipulations of letter order and word size. In general the children tended to react to manipulation of letter order in much the same way as they reacted to changes of word size. Children able to write their own names (second group) were more likely to refuse manipulations of any kind.

Table 1 also refers to instances where the manipulations of letter order and word size were not observed. The first two unbracketed columns of Table 1 detail the number of instances the children identified a manipulated word as being the same as the unmanipulated word. The figures reflect totals for all manipulations of letter order and word size. Children responded to manipulations of their names in much the same way

that they responded to manipulations of other words.

The second two unbracketed columns of Table 1 detail the percentage of INCORRECT responses between manipulations of letter order and word size when the manipulations were not observed by the children.

The manipulations performed on the words during Task 2 and 3 were initially observed by the children. On a subsequent day the children made an average of 9.6% more errors when the manipulations were not observed. The children made 4% more errors during the unobserved manipulations of the other two words.

This data must be viewed in conjunction with the additional information the children divulged during the course of the manipulations. This contextual information is outlined in the Discussion.

Discussion:

Aaron (3y, 2m) and Jamie (3y, 2m) were the two youngest subjects involved in this study. Both had very firm ideas about various aspects of literacy, but Aaron was quick to share his ideas while James was hesitant and shy. Displayed below are their names as they wrote them.

Insert Figure 1 about here

These samples of name writing vary substantially from drawing

samples collected from the same children. Ferreiro & Teberosky (1982) comment that two and a half to three year olds tend to begin writing using one of two forms: r[illegible]ous wavy lines or series of small circles or vertical lines. Ferreiro and Teberosky observe that the vertical lines correspond to the discontinuity of print versus the continuity of cursive writing which is usually denoted by wavy lines. Aaron and Jamie appear to be using vertical lines to signify print. Aaron, through his comments, indicates his dissatisfaction with this representation.

While Aaron was able to select his name when it was included in a list of four words, Jamie was not. Aaron's apparent expertise could perhaps be accounted for by the fact that the list did not contain a second word beginning with Aa, which may have given Aaron an advantage that Jamie did not have.

Neither Aaron or Jamie were able to divide a group of letter, numbers and symbols into their appropriate categories. However, Aaron was able to name the majority of symbols correctly. He did not appear to be aware of the convention of using 'letter' and 'number' as headings for a category of like symbols.

Michael (3y, 7m) and Gabriel (3y, 10m) both considered themselves able to write their name. They did so with letter-like symbols. Having done that, Gabriel covered his name with pictures. Michael made his name very carefully, saying the letter aloud while writing his name from right to left. He clearly said, "I...O...V...E...I" as if following some pre-established convention.

Insert Figure 2 about here

Neither Michael nor Gabriel was able to select his name from a list of four words. Michael chose to identify separate letters as being his name. Gabriel became tangled up between the two words beginning with 'Ga' and finally chose 'Gator'. While these responses might appear to suggest that these two children were confused and making decisions randomly, this impression was not confirmed during subsequent interactions. Both of these children selected the uppercase form of their names as being the preferred mode.

Melissa (3y, 8m) and Alexis (4y, 0m) used a combination of letters and letter-like forms to write their name.

Insert Figure 3 about here

Alexis chose to write her name twice, the first time near the top of the page, and, being displeased with that, again near the centre of the page. The rendition in the centre is interesting in that Alexis was very careful to have the correct number of characters (6) Melissa chose to draw a picture as well as her name.

Neither Melissa or Alexis was able to select their name from a group of four words. They both chose a variety of single letters, scattered among

the words, as being their name. They were also unable to divide the group of letters, numbers, and other symbols into their respective categories.

Both Nikki (4y, 6m) and Michael (5y, 3m) said that they were able to make their own names. Samples of their name writing showed a marked difference from those of Melissa and Alexis although it still could not be said that they are writing their names in standard form.

Insert Figure 4 about here

Nikki liked her name written in "this way" (see illustration above). During its production she tacitly acknowledged that this was just the way she prefered to make it. She also , prior to making the "k's", explained that they are difficult letters for her to make. Michael, during the production of his name,. became hesitant after making the 'C'. He was unsure whether he could produce it 'correctly'. Both children seemed to be aware of a standard form. They were currently dealing with this knowledge in different ways; Nikki operating with many versions while Michael was trying to produce a standard form. It was interesting to note that Nikki and Michael had very different problems to solve by virtue of having very different names. Nikki had only three letters to shuffle and interpret while Michael had seven different letters.

Nikki and Michael were both able to divide the letters, numbers and symbols into their appropriate categories as well as choose their names from among a list of four words. During this latter task, Michael decided

that he would read all the words for me. DOG was read as Camrin, Michael was identified as his name, MINIMUM was read as Nikki, and SUMMER was read as Scott. Later I was to find that Camrin often wrote his own name using only the first three letters, so Michael may have read DOG as Camrin (CAM) because of its size. MINIMUM has letters repeated, similar to the way NIKKI does. Michael appeared to be using a variety of clues in addition to those provided by the location and general context of the situation.

The last four children were those able to write their names in standard form. Their selection for this category may be questioned after observing the results of their name writing but the apparent discrepancies will be explained. The children are Camrin (4y, 8m), Tricia (5y, 2m), Kenton (5y, 1m), and Annia (5y, 3m). Following are instances of their name writing.

Insert Figure 5 about here

Insert Figure 6 about here

Tricia's rendition of her name was enlightening. The following description of the process underlines the reason for the product being labeled as written in standard form. The first time Tricia made her name it was to label a drawing. In the bottom right hand corner she wrote, from right to left, Tricia. Upon completion it looked like this: <aicirT> When

asked to just write her name on a piece of paper that the researcher could keep, Tricia began in the middle of the page and then, running out of space put the 'a' in the upper left hand corner. Notice the position of the line drawn by Tricia during the writing of her name. It appeared to be used to divide the page. It resulted in a 'new' left side on the paper and as such placed the beginning of Tricia's name in an appropriate place on the page. In addition to demonstrating Tricia's sophisticated understandings, the previous example demonstrated the sort of general expertise these children had with regard to various print conventions.

All four children able to write their own names were able to select their names from a list of four words and to divide a group of letters, numbers and other symbols into their respective groups. Tricia, Kenton and Cam preferred their names written in lowercase letters (except for the initial letter) while Annie preferred uppercase letters.

These children are capable written language users and consumers in some forums. However, Camrin referred to letters as words for example. He was apparently confusing the labels of various parts of written language. As a written language user this lack of metalinguistic knowledge did not cause him difficulties although it may cause evaluators of written language users difficulties. Examples such as this indicate that young children know a lot about written language. However, much of this knowledge may be implicit rather than explicit and should not be assumed to be absent.

Those children most able to recognize their names were also most

likely to be able to write them. Aaron, Nikki and Michael (5y, 3m) were interesting exceptions. As mentioned earlier, Aaron appeared to use the first two a's in his name as a guide for identification. In his particular case, there was not a second word beginning with the first two letters of his name. Nikki and Michael were able to recognize their name, but unlike Aaron, used standard letters during name production. The use of appropriate standard letters indicated a lot of experience with written language yet the lack of a correct match with the standard form tentatively placed Nikki and Michael in transitional phase.

In general, the children appeared confident about their ability to write their own names. Melissa, who said initially that she was unable to write her name, was able to write her name during a later session. Her answer appeared to depend on whether she wanted to write her name rather than whether she could. When she felt more at ease she would write her name in the course of general play with paper and markers.

The children had to make a series of decisions with regard to the letter order and word size of their names. However, one task required the children to make a series of decisions with regard to letter order and word size with reference to two other words in order to reveal whether the children treated their names as unique words. It was expected that the decisions made during the course of the task would permit insight into the children's current understandings about the significance of letter order and word size. A comparison of the results of the two tasks permits a judgement as to whether the children formed understandings unique to

their names and formulate other, different, understandings about words in general.

These children did not treat their names as unique words in terms of letter order and word size. Most of the children consistently applied similar criteria to all the presented words. The name was not treated by these children as a unique word.

The four children who insisted on a specific letter order and word size for their names also insisted on a specific letter order and word size for the other words. Eight children who did not insist on a specific letter order and word size for their names and of these, seven did not insist on a specific letter order and word size for the other words. The exception was Nikki.

Nikki (4y, 6m) consistently permitted all three words to be written from right to left without their undergoing a change in meaning. Her own name was permitted additional freedoms. For example, as long as the five letters were present, in any order, it was her name. However, if letters were added or taken away the new grouping was a different word. Changes of this sort to her name usually became "Nicole". This was the long form of her name.

The four children insisting upon a specific letter order and word size for their names and for the other words were able to write their names in standard form. These children would permit total word reversals. The words, when printed from right to left appeared to be read from right to left.

The children's comments during the collection of data revealed some intriguing and sophisticated understandings about words and written language in general. Since the tasks were limited in scope, the understandings held by these children, most of whom were unable to write their names in standard form, illustrate only a portion of their knowledge of written language.

For some of the children, a change in letter order appeared to signal a change in word meaning. If changes produced a word similar to the original word then it was sometimes able to say part of the original word. For example, Alexis (4y, 0m), said that <sixelA> was only "a part of her name". Aaron (3y, 2m), when asked, "Does this say Aaron?" and shown <Aron> answered, "A little tiny bit..." Nikki (4y, 6m) appeared to attribute meaning on the basis of both letter content and word shape.

All the children appeared to have definite ideas about what could and could not be done. Jamie (3y, 2m) preferred her name made with uppercase letters. Jamie, while usually very quiet and reserved, demanded in a loud voice that the researcher not use lowercase letters. Only uppercase letters would suffice.

The children did not, in general, require a minimum quantity of letters in order to 'read' a word. Some were able to 'read' one letter as if it was a word. A couple of the children were consistent in the application of a "minimum numbers of letters" hypothesis as outlined by Ferreiro and Teberosky (1982). For some children, the end of a word did not have to be either at the end of the print or at the point where a space was included.

During the course of data collection some new summer staff began working with the children. One individual was male. He was the only male on staff at this point. His name was Michael. 'Little' Michael appeared to be as impressed as all the other children with this new and interesting individual. But unlike the other three year olds, he had the same name as this fellow. Michael was in the midst of a crisis. He was suddenly having to share his name with someone else. He shared his name in a way that must have seemed very reasonable. He gave half of his letters to the new Michael.

Those children able to write their names in standard form consistently insisted upon a specific letter order and word size for their names and for other words although they would permit words to be written from right to left without a change in meaning. While previous examples illustrated that the children appeared to read the word from right to left to make sense of it, another possible reason for the easy exchange of left to right and right to left is a result of children attending to certain features such as the initial letter.

These children, able to write their name in standard form, appeared to view letters, their order and their number (word size) as important features of words. If letter order was changed then the word's meaning also changed. If the number of letters was changed then the word's meaning was also changed. All four children pointed to the correct order of the letters as a reason for rejecting the new form.

When additional letters were added or when letters were removed the

words were viewed as having different meanings, The children did not appear to focus on the size as a major reason. They appeared to be making their decision on the basis of the added or subtracted letters. However, when the children made their own words they often made big words for big things and little words for little things.

Although a part of a word could say one thing and another part of the same word say another thing to the children unable to write their own names, children able to write their own names demonstrated that they were beginning to attend to the spaces that appear around words.

Conclusions

In general, the children able to write their own names using a standard form demonstrated a smaller variety of understandings about letter order and number of letters (word size) of words. It may have been that the tasks were not as challenging as they were to the younger group or it may simply be that these children are operating on the basis of understandings very similar to, if not the same as, many adults.

Children as young as 3 years and 2 months appeared to have very definite ideas about which manipulations could and could not be performed on words, Children able to write their names in standardized form refused almost all manipulations except those which involved total reversal of the letter order of the word.

The children able to write their names in standard form appeared to view letters, their order and their number (word size) as important

features of words. If the letter order was changed then the word's meaning also changed. If the number of letters (word size) was changed then the word's meaning also changed. Children able to write their own names in the standard form have some very sophisticated understandings about words in our written language system. An obvious outcome of this demonstrated expertise is that those children able to write their own names using a standard form demonstrate a smaller variety of understandings different from the adult norm than those children unable to write their names in standard form.

The writing progression apparent during the children's attempts to write their names ranged from letter-like to standard form. This progression appears to follow that outlined by other researchers in this area (Clay, 1975, Ferreiro & Teberosky, 1982). Older children tended to have more expertise with letters and numbers than the younger children. This is also consistent with previous research (Ferreiro & Teberosky, 1982; Goodman and Altwerger, 1981; Mason, 1982).

The data did not indicate that children's personal names are treated by children as unique words in terms of letter order and word size. Rather children appeared to view their names as words with characteristics similar to other words. Ferreiro and Teberosky (1981, 1982) refer to the "long, constructive process" children engage in while discovering the properties of written language. It may be that a part of the constructive process involves children learning to write and read their own names. This process may be particularly significant since learning how to read and

write one's own name is a commonplace activity among young children. It may be that children learn the role of letter order and word size while learning a particular word (perhaps their own name) and generalize their understandings from one particular word to other words.

Those children unable to write their names in standard form tended to be the younger subjects. The mean age of these children was 3 years and 9 months. They were less able to identify their own names from a list of words and less able to classify correctly a group of symbols into categories of letter, number or other symbol They did not insist on a specific letter order for their names or for the other words. While it may appear that these children were not yet interested or engaged in learning about written language their conversation reveals definite understandings about words. While it was not possible to categorize their responses according to levels or stages such as those described by Ferreiro and Teberosky (1982) it was possible to observe small children applying their limited understandings of words to the problems presented to them during the tasks. The manipulated words required the children to make decisions. They did not consider themselves lacking in knowledge. They were confident in their ability to make correct decisions.

The children appeared to treat all changes as manipulations of letter order. For example, when letters were removed the children focused on the particular letters that had been taken. They did not appear to be concerned about the change in number of letters (word size) but rather were concerned about a change in content. When letters were added they

did not make comments about the words being too long but instead commented on the letters that did not belong. It may be that the children reacted to the size problem and solved it by discovering the missing or the added letters but this study does not provide evidence of this.

The results of this study call into question the view that children learn the written form of their own names as unique cases of written language learning. It would appear that when children are able to write their own names in standard form they can exhibit a sophisticated level of word knowledge.

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Table 1

Percentage of Incorrect Responses

	Name[a]	Other Words[a]	Letter Order	Word Size
CHILDREN UNABLE TO WRITE THEIR NAMES				
Aaron (3y, 2m)	62.5 (50)	81.3 (50)	100 (41.7)	58.3 (58.3)
Jamie (3Y, 2m)	100 (87.5)	87.5 (100)	83.3 (100)	100 (91.7)
Michael (3y, 7m)	100 (25)	81.3 (75)	91.7 (50)	83.3 (66.7)
Melissa (3y, 8m)	75 (87.5)	93.8 (93.8)	100 (100)	75 (83.3)
Gabriel (3y, 10m)	75 (75)	81.3 (87.5)	83.3 (91.7)	83.3 (75)
Alexis (4y, 0m)	75 (100)	93.8 (68.8)	91.7 (75)	83.3 (83.3)
Ninki (4y, 6m)	25 (75)	43.8 (12.5)	58.3 (50)	16.7 (16.7)
Michael (5y, 3m)	87.5 (12.5)	56.3 (6.3)	83.3 (16.7)	50 (8.3)
CHILDREN ABLE TO WRITE THEIR OWN NAME				
Camrin (4y, 8m)	12.5 (12.5)	18.8 (6.3)	16.7 (16.7)	16.7 (0)
Tricia (5y, 2m)	12.5 (12.5)	25 (6.3)	8.3 (16.7)	33.3 (0)
Kenton (5y, 1m)	12.5 (12.5)	25 (6.3)	8.3 (16.7)	33.3 (0)
Annia (5y, 3m)	0 (0)	0 (0)	0 (0)	33.3 (0)
Number of Manipulations	8	16	12	12

Note Figures in brackets refer to percentage of incorrect responses when manipulations were observed by children.

a Results regarding letter order and word size have been collapsed in these two columns.

Figure 1

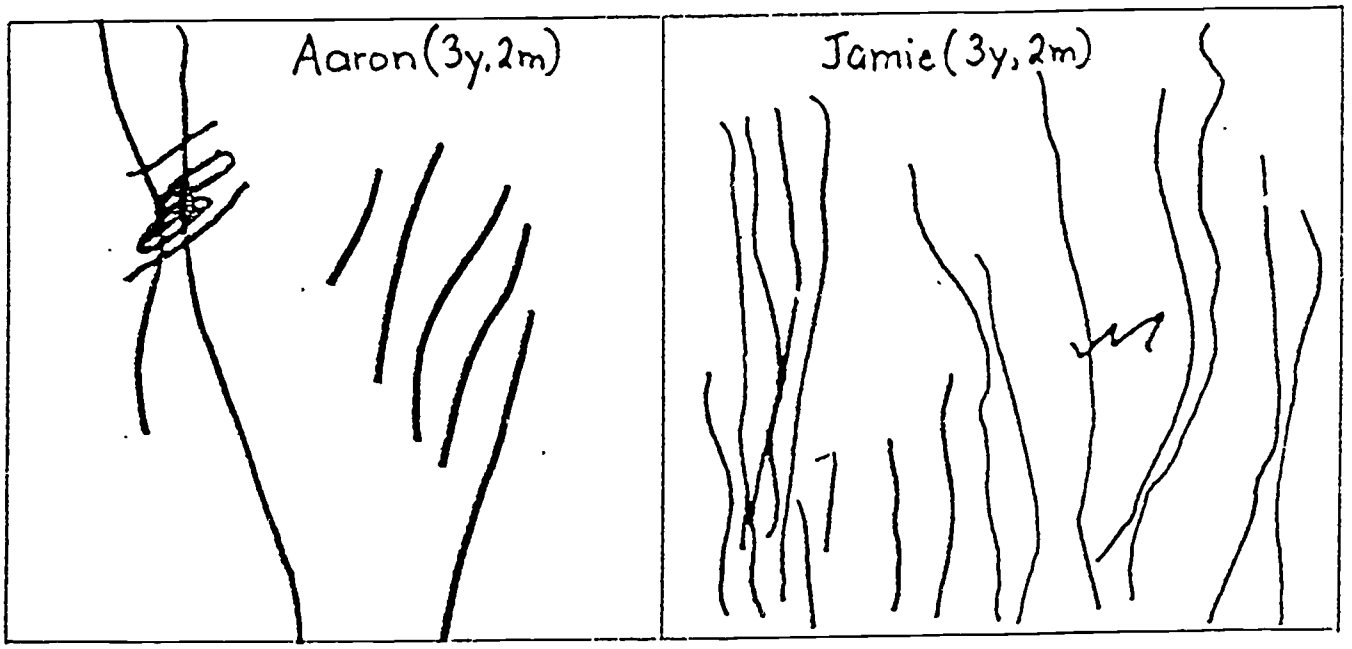

Figure 2

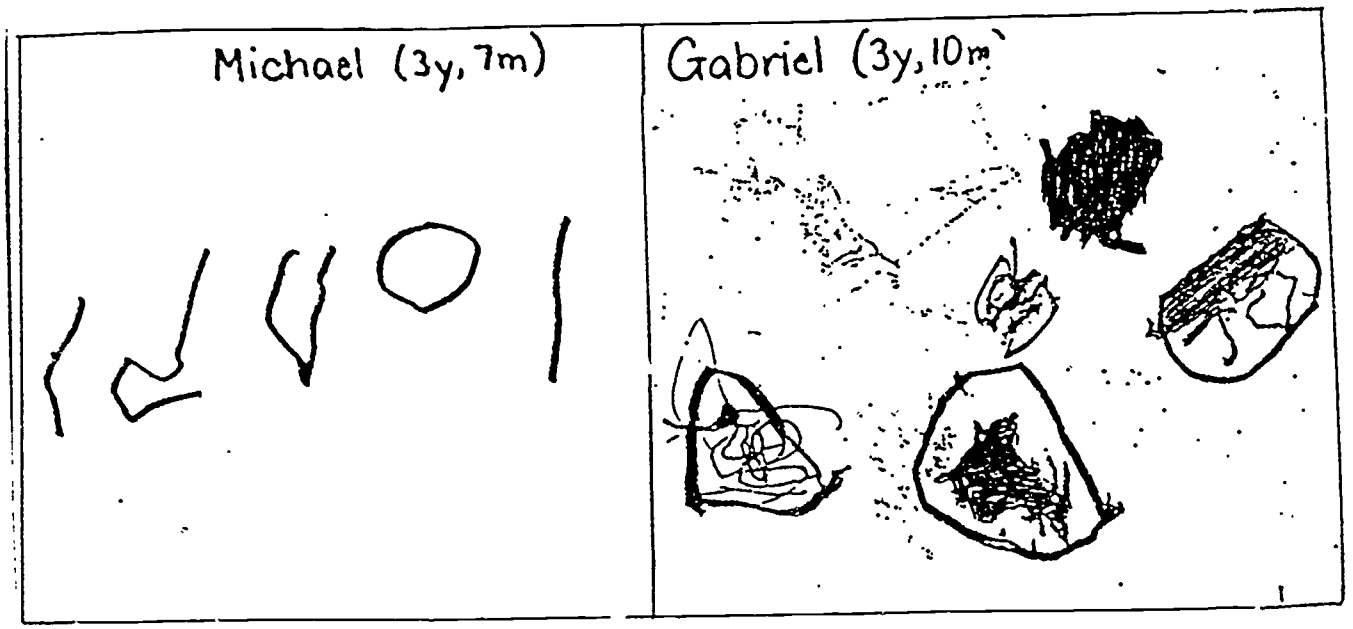

Figure 3

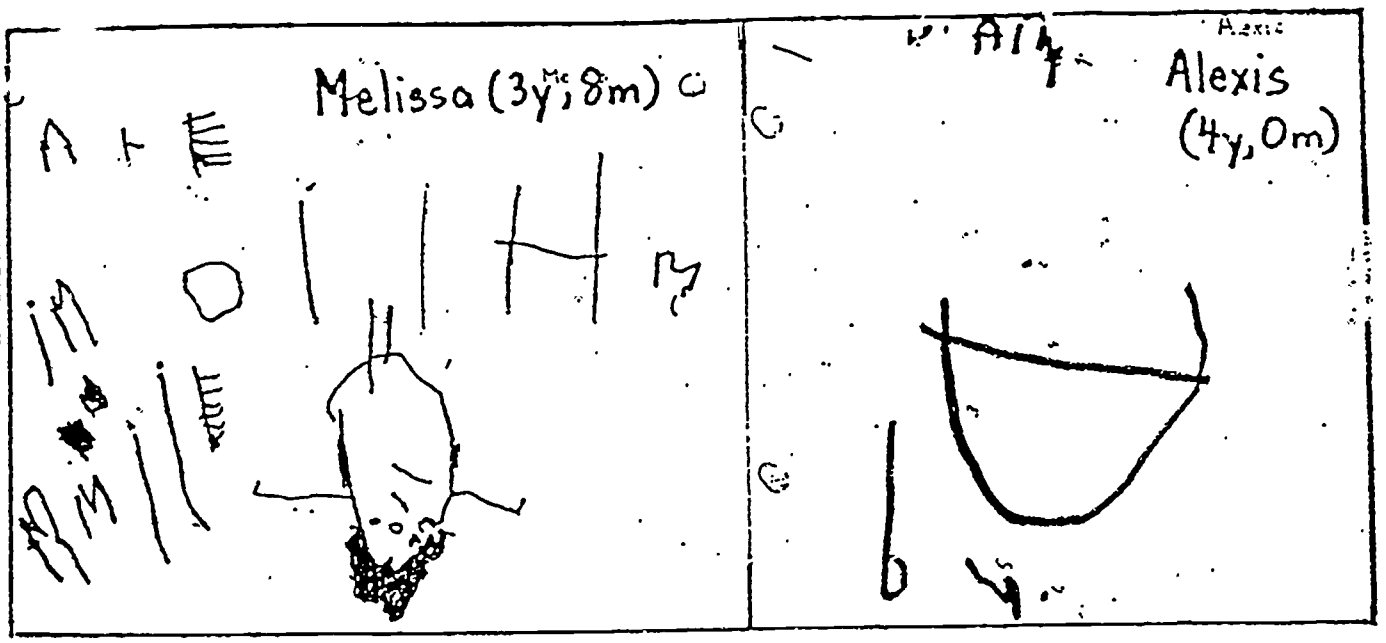

Figure 4

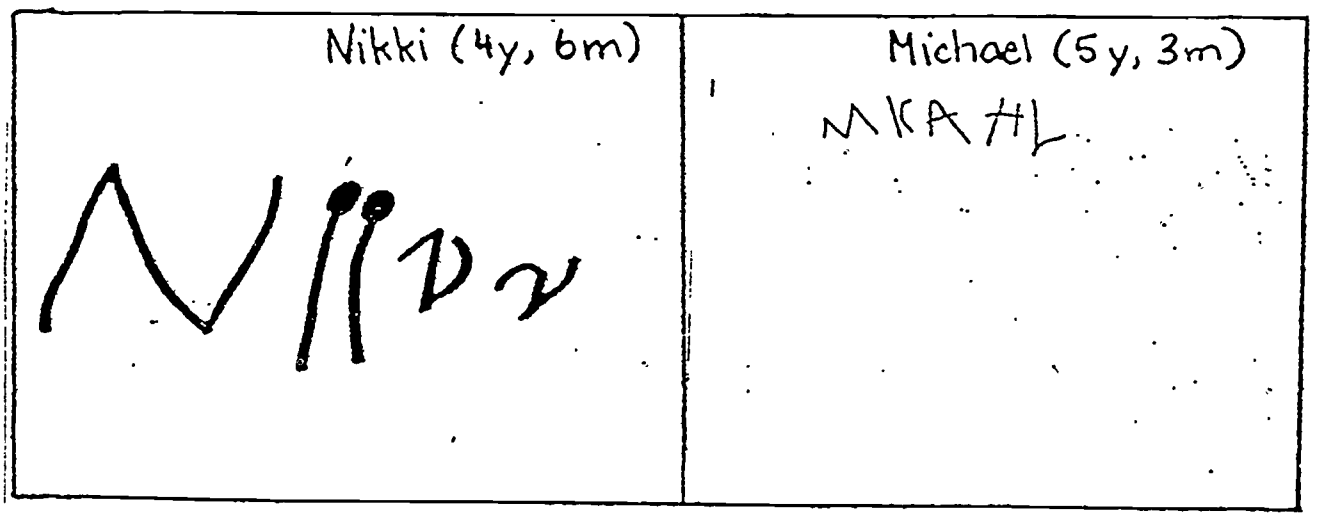

Figure 5

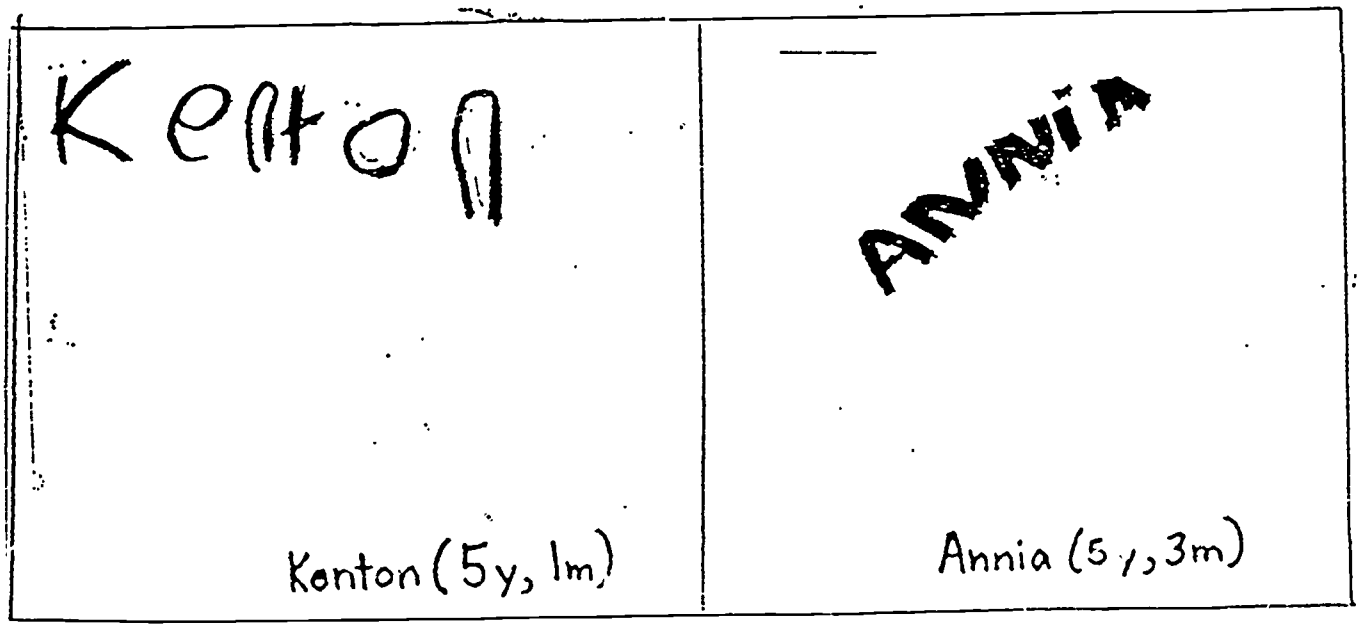

Figure 6

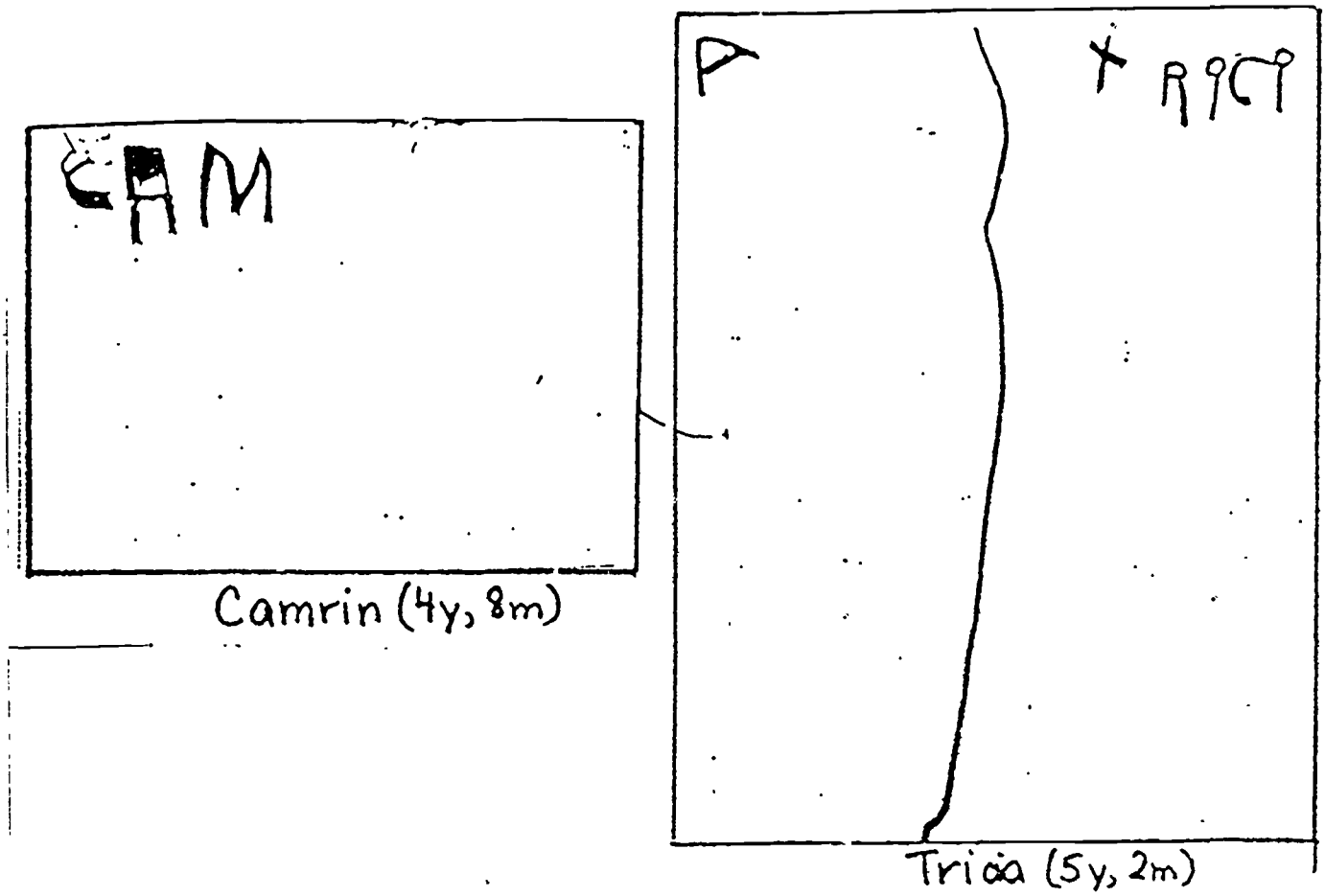

Figure Captions

Figure 1. Aaron (3y, 2m) and Jamie (3y, 2m)

Figure 2. Michael (3y, 7m) and Gabriel (3 y, 10m)

Figure 3. Melissa (3y, 8m) and Alexia (4y,0m)

Figure 4. Nikki (4y, 6m) and Michael (5y, 3m)

Figure 5. Kenton (5y, 1m) and Annia (5y, 3m)

Figure 6. Camrin (4y, 8m) and Tricia (5y, 2m)