

Running Head: Writing Activities

Joint writing of dictated words versus proper names:

Analysis of low SES mother-kindergartner dyads

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Maternal writing mediation style was explored and compared across two writing activities. Mothers from low SES were videotaped while joint writing with their kindergartners on home-like activity, when writing a list of names of guests to be invited to an imaginary birthday party and on a school-like activity, writing dictated words, selected by the researcher. The video films were assessed in terms of: (1)

General characteristics like atmosphere, reinforcements, and criticisms. (2)

References to specific language components of the Hebrew orthography. (3) Maternal strategy of mediating the grapho-phonemic code, and the printing of the letters were assessed. The findings indicate that mothers have a general across activity strategy of

mediation writing. Still, different contexts of writing reveal different maternal behaviors. In the home-like activity the interaction's atmosphere is warmer and more cooperative, while in the more school-like activity mothers tend to be more intrusive.

Maternal reference to orthographic rules is more frequent on school-like tasks. In light of the results and since joint writing is an important context for the development of emergent literacy parents and kindergarten teachers are encouraged to utilize everyday opportunities, more home-like natural situations, for mediating writing.

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Children from low SES generally reach a lower level of literacy than their peers from middle or high SES and the discrepancies are salient already in the kindergarten (e.g., Bowey, 1995; Brooks-Gunn, Klebanov & Duncan, 1996; Smith & Dixon, 1995; Walker, Greenwood, Hart & Carta, 1994). One possible reason for these gaps may be parental style of interaction with their children, and in particular mediation in joint activities.

The current study focuses on low SES mothers' joint writing with their kindergartners comparing mediation styles on home-like activity, when writing a list of names of guests to be invited to an imaginary birthday party vs. school-like activity, writing dictated words, selected by the researcher. Since joint writing is an important context for the development of emergent literacy (Aram & Levin, submitted b), this paper explores whether mothers have a writing mediation style across tasks and which writing activity leads to a higher level of maternal mediation.

The important role of maternal mediation in child development is well established (e.g., Holden, 1997; Meadows, 1996; Rogoff, 1990). Mothers interact daily with their young children, and these interactions contain elements of teaching which may provide a basis for later outcomes including school successes and failures (e.g., Kelly, Morisset, Barnard & Hammond, 1996; Pratt, Kerig, Cowan & Cowan, 1992).

Kermani and Brenner (2000) point out major integrated functions that characterize effective mother-child interaction: The mother is sensitive to her child's level of competence and provides guidance accordingly and she gradually withdraws her support and lets the child perform more independently. These characteristics are

frequent within middle class mother-child interactions (e.g., Harris, Kurpinski & Johnson, 1999), and are usually accompanied by maternal verbal, supportive, open and a less directive mediation style.

Low SES mothers tend to show a different mediation style. While interacting with their children, they are less verbal yet more controlling and directive, compared to middle SES mothers, (Diaz, Neal, & Vachio, 1991; Laosa, 1980; Moreno, 1991). Researchers find parental directiveness to be intrusive and, by implication less sensitive to children's competence (e.g., Murray & Hornbaker, 1997; Pine, 1992; Pratt, et al., 1992).

Different contexts may affect the nature of the interactions and the parents' mediation styles. Parents modify their level of directiveness in accordance with the nature of the task. When the tasks are more difficult, more constructed, require specific outcomes and are less familiar to the child, parents tend to be more directive (e. g., Baker, Sonnenschein & Gilat, 1996; Gonzalez, 1996; Haden & Fivush, 1996; Kermani & Brenner, 2000; Klein, 1988; McNaughton & Leyland, 1990; Moreno, 1997; Rogoff, Ellis & Gardner, 1984; Sonnenschein, Baker & Freund, 1993).

Kermani and Janes (1999) contrasted maternal scaffolding of low SES mothers to their preschool children in a school-like activity (joint reading of an opposites book) and home-like (creative play with homemade dough) task. They found that in the home-like task, mothers were more sensitive to their children; they adjusted their scaffolding to variation in the task and demonstrated a greater range and variety of scaffolding strategies. The researchers conclude that the specificity of the tasks plays an important role in how parents and children interact.

Studies that investigated the role of different activities in determining parental mediation strategies, examined tasks that differ greatly in their demands, usually

goal oriented vs. free play, like building a figure vs. playing with household objects (Gonzalez, 1996), or pattern construction vs. playing with dough (Kermani & Brenner, 2000), etc. Sensitive differences between tasks and their meaning to parental mediation are yet to be studied.

Moreover, in the spectrum of emergent literacy, parental mediation in different contexts has been scarcely studied, usually limited to joint book reading and to verbal exchange (Scarborough & Dobrich, 1994). Few studies compared joint reading to other tasks, frequently more goal oriented ones like problem solving or copying a block model (Conner, Knight & Cross, 1997; Gonzalez, 1996; Pratt, et al., 1992). In the domain of language, Haden and Fivush (1996) compared mother child conversation style during free play with a toy vs. a memory conversation session.

The two activities that are compared in the present study involve joint writing. Parent-child joint writing received very little attention in emergent literacy literature (Senechal, LeFevre, Thomas & Daley, 1998). A few case-studies described young children's naturalistic writing with others at home. The described writing tasks were functional in nature, e.g., writing a list of friends' names, a note to remember, signs for games, stories, letters, or pretend homework (Bissex, 1980; Gundlach, Mclane, Stott & McNamee, 1985). The main results of these case studies were that children are engaged in literacy activities in their everyday life on their own and with their parents and there is a systematic growth in their knowledge with the growing age.

Two designed studies analyzed writing of a letter text among dyads of young children and their middle class parents (Burns & Casbergue, 1992; DeBaryshe, Buell, & Binder, 1996). Burns and Casbergue (1992) examined the relations between parental mediation style when writing a letter and characteristics of the resulting letter. Parents who demonstrated higher levels of control produced with their children

letters that were of a more conventional nature. The authors concluded that less directive mediation style is beneficiary to children's literacy development as it encourages pre-conventional writing. DeBaryshe, Buell, and Binder (1996) studied high SES kindergartners attempting to write a letter alone and with their mothers' assistance. They analyzed the relationship between independent level of writing and maternal mediation. Almost all mothers, irrespective of their children's independent level of writing, directed their children to use conventional spelling. Nevertheless, qualitative evidence emerged that mothers attuned their mediation to their children's independent ability.

Joint writing, on top of it's communicational nature, contains a proximity to the basic skills of letter knowledge and grapheme-phoneme mapping which are significant for the acquisition of reading and writing (e.g., Adams, 1991; Berninger, Yates, Cartwright, Rutberg, Remy, & Abbot, 1992; Muter, Hulme, Snowling, & Taylor, 1997; Naslund & Schneider, 1996; Shatil, Share, & Levin, 2000). Some explicit, systematic phonic instruction may be fruitful for understanding the written system (National Reading Panel, 1999).

The research on joint writing focused on home-like activities. More constructed activities that may be activated by the parents when they try to teach skills that are related to the acquisition of reading and writing, like letter knowledge or phonological awareness, were neglected.

The first aim of the current study was to explore whether mothers have a general writing mediation style beyond different writing contexts. The second aim was to compare maternal mediation style of low SES mothers when they help their kindergartners write a list of guest's names to be invited to a birthday party (home-like activity) vs. when they help them write dictated words selected by the researcher

(school-like activity). Both activities are goal oriented and demand maternal mediation since the kindergartners cannot accomplish either task on their own. Still, the activities differ in their nature, given that “writing names” task is more functional, more likely to appear in every day life and offers flexibility in choosing how many names and which names to write. Comparatively, “writing dictated words” task is more structured, and include words that can encourage mothers to refer to specific features of Hebrew language and orthography like the suffix marking gender, rhymes, etc.

We expected that mothers would exhibit a general style of mediation across the writing tasks, since the two tasks are from the same domain. Still, on the home-like task we expected warmer less pressured atmosphere, where mothers can employ higher levels of sensitivity to their children and less intrusiveness. On the school-like activity we expected mother to refer more to the Hebrew orthography.

Method

Participants

The participants consisted of 41 children (19 boys and 22 girls) and their mothers in a development town. The term ‘development town’ in Israel refers to relatively poor settlements, most of them in the periphery of the country. In comparison to the general population of Israel, their SES can be characterized as low, on the basis of education, occupation, and standard of living (The Statistical Annual, 2000). The population size of this township was 19.500. About 25% of the population was treated by the local welfare services.

The children were recruited from seven kindergartens in seven neighborhoods selected by the head of the municipal welfare department and the superintendent of education as representative of the SES range in this town. All kindergartens followed

the same curriculum, were supervised by the same inspector, and were advised by the same literacy counselor.

Most of the families were intact. The parents of 38 children were married, 2 were separated, and 1 mother was single. The average number of children per family was 3.32 ($SD = 1.42$). This average is higher than the national average, $M = 2.20$ (The Statistical Annual, 1996).

All parents were schooled in Israel. The level of parental education was lower than the national average of their cohort. About 27% of the mothers and 51% of the fathers did not complete high school (i.e., 12 years of schooling). For mothers and fathers, respectively, 24% and 12% completed vocational high school, 27% and 10% regular high school, 10% and 20% vocational courses above high school, and 12% and 2% teachers' colleges. No mother and only two fathers graduated from a university. In comparison, 23% of their Israeli cohort is university graduate.

As to occupation, among the mothers, 39% were unskilled and 34% were housewives. Among the fathers, 10% were unskilled and 12% were unemployed. This level of vocation and employment is lower than that of their Israeli cohort.

The focus in the present study is on maternal mediation rather than on other family relatives' mediation, since mothers are still the main mediators for their young children. Pellegrini, Galda, Shokley & Shtall, (1994) studied the nexus of social literacy experiences at home and found that 60% of literacy events of kindergarteners at home occurred with their mothers, 1% with their fathers, and 2.4% with both parents. In 32% of the events the children acted on their own, Siblings shared 1.5% of the events and grandparents only 1%. The researchers concluded that mothers are the main mediators in the domain of literacy. To validate the decision to spotlight

maternal mediation in the present study, the working hours of fathers and mothers who worked outside their homes were calculated. Among working fathers the average number of working hours per week was $\underline{M} = 56.73$, $\underline{SD} = 7.95$, that is higher than the national average, $\underline{M} = 40.10$. Among the working mothers the average number of working hours per week was $\underline{M} = 33.50$, $\underline{SD} = 11.20$. Note that 34% of the mothers were housewives. A t test revealed that the working fathers in the sample spent significantly more hours at work per week than working mothers ($t = 8.50$, $p < 0.001$). To control for possible effects of child's age on mother-child interaction we restricted age differences, so that children were sampled if born between January and June. The average age of the children was five years and eight months ($\underline{M} = 69.59$ months, $\underline{SD} = 2.14$). Only children whose mother tongue was Hebrew were sampled. No child diagnosed as having special education needs was included. Forty-six children were found suitable by all our criteria, and the parents of 41 of them agreed to their participation in the study.

Measures

Mothers were videotaped while guiding their children in two writing activities, which took place on two days at the participants' homes. The videotapes served as the basis for analyzing maternal mediation characteristics.

On the home-like writing activity, the child was asked to imagine having a birthday party in a week time, s/he was handed half a page (A4) and was asked to write a list of guests to be invited to that party. The mother was asked to help her child perform the task. No additional instructions were given in reference to the mother's strategy of mediation, the identity or the number of the guests to be included on the list. The number of names written ranged: 4 - 15, with mean and

standard deviation, $\underline{M} = 9.29$, $\underline{SD} = 2.79$. When more than 10 names were written our analysis was limited to the first 10 names.

On the school-like writing activity the mother and the child were presented with four cards (23 x 17 cm.), each of which displayed identifying drawings of two nouns (9 x 9 cm.). The sequence of the cards presentation was random. Four blank cards (17 x 10 cm.) were given to the child and the child was asked to write each pair of words on a separate card. The mother was asked to help her child with no further instructions. One card comprised the two words gēzer - mēlafēfon¹ 'carrot - cucumber', which differ in their phonological length but do not differ distinctly in the size of their referents. These words were chosen to encourage the mother's reference to the orthographic rule indicating that longer sounding words are written with more letters. Another card comprised the two words yad - tsiporen 'hand - finger-nail'. On this card, the longer sounding word in the pair denoted a smaller referent. This card's purpose was to encourage the mother's reference to above-mentioned orthographic rule indicating that longer sounding words are written with more letters even if they represent smaller referents. These words were included since young children prior to becoming aware of the alphabetic principle, tend to use a referential strategy whereby more letters are written, often randomly, for bigger referents (Levin & Korat, 1993). On the third card, the two words differed in gender, zakēn - zkenā 'old man – old woman'. This card's aim was to support the mothers' reference to the prevalent orthographic Hebrew rule in which masculine and feminine nouns are spelled the same, but an H (hei), indicating the feminine, is suffixed to the latter. The final card presented the words sapa - mapa 'sofa - table cloth', both indicate feminine nouns and are spelled with an H (hei) as a suffix, still their femininity is only grammatical and does not represent gender differences. Through these words mothers could refer to the

latter orthographic rule, moreover the rhyming words enabled the mother to draw her child's attention to the fact that two rhyming written words differ only in their initial letter.

In both activities, if a mother asked for instructions or clarifications, such as "Can I do it this way?" the experimenter replied: "You can do whatever you think is right, in whatever way you feel is appropriate". On the first day the home-like writing activity was administered and on the second the school-like activity. The home-like, writing names, was chosen to be the first, since low SES mothers seem to feel more comfortable when interacting with their children on home-like tasks (Gonzales, 1996). We assumed that mothers' feeling at ease on the first writing task will facilitate their entrance to the second task and the desire in the present study was to extract the best of maternal writing mediation.

On the beginning of the home-like activity, ten children wrote few names independently: One child wrote five names, one child wrote four, three children wrote three names and five wrote one name independently. The writing of these names was excluded from analysis, since no child was able to write independently a dictated word and because the object of this research was maternal writing mediation. Hence, assessment started from the first word mediated by the mother.

The videotapes of the mothers guiding their children in the two writing activities were analyzed in few manners. First, maternal mediation was assessed in terms of general characteristics like atmosphere, reinforcements, and criticisms. Second, maternal references to specific language components of the Hebrew orthography were assessed. Thirdly, maternal strategy of mediating the grapho-phonemic code, and the printing of the letters were assessed. All the scales to measure maternal mediation were established for the purpose of the present study.

General mediation characteristics

Dyadic behavior in the two writing activities (home-like and school-like) were scored on atmosphere during the interaction, level of child's cooperation, maternal demand of accuracy in shaping letters, and physical contact between mother and child per each written pair of words on a 3-point scale. A score was granted for each activity on duration of the interaction, and the number of maternal reinforcements, criticisms and comments on discipline was counted.

Atmosphere between the dyad while writing the words was scored: (1) Negative vibes between the mother and the child. (2) Neutral ambiance, where the observer get the impression that there is a task to be done, and it will be done. (3) Warm contented atmosphere, when one can see that the mother and the child enjoy their dyadic activity.

Cooperation of the child was scored: (1) The child shows anger and dislike, (2) The child obeys, (3) The child is enthusiastic and loves to write with his/her mother.

Maternal demand of accuracy of shaping letters' was scored: (1) Low demand, when the mother hardly refers to the outcomes; she let the child write freely and accepts the product even if it is unconventional. (2) Medium demand, when the mother tries to make the child produce the proper letter in the proper position, but when the child had difficulties she will compromise and accept a less conventional product. Still the mother will not accept a letter that is absolutely unconventional. (3) High demand, when the mother insists that the letters and the words will be written, and if any product is unsatisfactory the mother will claim corrections until the outcome is written conventionally.

Physical contact between the mother and the child was scored: (0) No physical contact is observed (1) Occasionally the mother and the child touch each other (2) The mother and the child touch each other enduringly.

The duration of each interaction was measured in minutes from the moment the experimenter finished giving the instructions until the moment the dyad completed the task. The mean per each written pair of words serves as the measure for duration.

Maternal general reinforcements like “good”, “very nice” and specific reinforcements like “you wrote this letter beautifully”, were counted.

Specific disapprovals of the mother related to the child’s performance like “You wrote it wrong. This line is too short” or “No, the direction of this line has to be different - from here to here”, were counted.

The number of maternal discipline remarks was counted (e.g., “Sit still”, “Stop it”, “Listen to me”, “Do it properly”).

The inter-judge reliability of two independent judges on mediation scores of four randomly selected children was high, Kappa = .94

References to orthography

Maternal references to three aspects of orthography: phonological-orthographic length, morphology and medial/final letters were coded along the two writing interactions.

Phonological-orthographic length - A basic orthographic regularity indicates that longer sounding words are typically written with more letters. Two pairs in the school-like activity (yad - tsiporen 'hand - finger-nail', gezer - melafe fon 'carrot - cucumber') and many names in the home-like activity (e.g., Dan, Margalit,) allowed reference to this orthographic regularity.

Morphology – In the Hebrew gender-number system, nouns are suffixed with the bound morpheme /a/ spelled with the letter H to mark singular-female. In the school-like activity, the pair of words ‘old-man – old woman’ which differ by this morpheme (zakēn - zkeṇa, spelled ZKN - ZKNH) and ‘sofa –tablecloth’ (sapa - mapa, spelled SPH - MPH), allowed the mother to refer to this morpho-phonological rule of spelling. This morpheme was quite frequent on female names on the list of guests in the home-like activity (e.g., Dana spelled DNH, Naama spelled NAMH).

Medial/final letters - Five Hebrew letters – M (mēm), N (nun), Ts (tsadik), P (pei), and K (kaf) – have two written forms, medial and final. Final letters are written at the end of words, whereas medial letters are written in all other positions. Kindergartners learn to name and print medial before final letters (Levin, Patel, Margalit & Barad, submitted) and sometimes use medial letters when finals are required (Levin, Korat, & Amsterdamer, 1996). The chosen words in the school-like activity, allowed the mother to refer to this orthographic feature, since they contained three final letters and eight medial letters (e.g., zkeṇa, ‘old woman’ – has the medial Nun in the middle and zakēn ‘old man’ has a final Nun in it’s end). In the list of guest (home-like activity) many names included medial and final letters (e.g., Dafna, includes a medial Nun in the middle and Dan has a final Nun in it’s end).

Maternal reference to these orthographic rules was assessed for each word that deserved reference. Maternal mediation was scored on a 3-point scale: (0) No reference; (1) Reference without explanation; (2) Reference, accompanied by explanation of the rule.

The inter-judge reliability of two independent judges on the mediation scores of four randomly selected children was high, Kappa = .91

Maternal strategies of mediation

Grapho-phonemic mediation

Maternal grapho-phonemic mediation reflected the degree to which the mother communicated explicitly the steps in the process of encoding, encouraged the child to carry out those steps, and provided scaffolding. It also exhibited the child's participation in going through the steps. Maternal strategy was assessed on a 6-point scale described and illustrated below². The production of each letter (\underline{n} = 30) on the school-like activity, and \underline{M} = 22 on the home-like activity was scored according to this scale.

1. Mother writes down the word. She utters the word to herself as a whole, without segmentation, or does not say it at all. Example: The boy sat on his mother's lap holding a pencil. She held his hand, murmured the words to herself, and led his hand in writing the words.

2. Mother writes down the word as a model for copying. She utters the word without segmentation or writes silently. Example: The mother wrote the word jad 'hand' (JD) silently. The child copied the word, and then pointed at J saying kaf 'palm' and at D saying jad 'hand.' The child misunderstood the written product to mean 'palm' (of) 'hand' and mapped a word per letter. Her mother ignored it.

3. Mother dictates the letters. Example of writing N in zakən 'old man':

Mother: Now, write Nun (last letter name).

Child: (writes a different letter).

M: See, that's Nun (writes N on another sheet of paper).

C: (copies N).

4. Mother segments the word into CV/C units and links the phonological unit with a letter name. Example of writing R in gezɛr 'carrot':

M: gɛ-zɛ-r, /rrr/ like at the end of ʃaxar (name) (stressing the last phoneme), Rɛiʃ (final letter name).

C: How do we write it?

M: It's like Hɛi (letter name) without the medial line.

C: (writes R).

5. Mother segments the word into CV/C units, and scaffolds the child in linking the phonological unit to a letter name. Example of writing P in mɛlafɛfon 'cucumber'.

M: /mɛ-la-fɛ/ /fɛ/ /fɛ/ what is it?"

C: Bɛt? (letter name).

M: No. Bɛt sounds as /bɛ/ and /vɛ/ (letter that stands for /b/ or /v/).

C: Vav? (letter name).

M: No. /fɛ/ /fɛ/ what is it?

C: Pɛi? (letter name).

M: Right. Pɛi is for /pɛ/ and /fɛ/.

C: (writes P).

6. Mother encourages the child to segment the word into phonological units (C/CV), or to retrieve a grapheme per unit. Example of writing R in gezɛr '':

M: What do you hear next?

C: Rɛiʃ (a letter name).

M: Right.

C: (writes R).

Inter-judge reliability of two independent judges, computed on the scores of mediation of 28 letters, in four pairs of words, produced respectively by four children randomly selected, resulted in 100% agreement.

Printing Scaffolding

This factor captured maternal scaffolding and child's autonomy in retrieving letter shapes and in printing the letters. This factor was dependent on the autonomy allowed or encouraged by the mother and accepted or assumed by the child. The production of each letter ($n = 30$) on the school-like activity (writing dictated words), and $M = 22$ on the home-like activity (writing a list of guests) was assessed. A 4-point scale was used to score the printing of each letter: (0) Mother wrote the letter on her own; (1) Mother wrote and child copied the letter; (2) Mother scaffolded the child in writing the letter; (3) Child wrote the letter on his/her own, usually encouraged by mother.

Inter-judge reliability of two independent judges, computed on the scores of mediation of 28 letters, in four pairs of words, produced respectively by four children randomly selected, resulted in 92% agreement.

Results

The results section is displayed in regard to general mediation characteristics, maternal references to orthography and maternal strategy of mediating the grapho-phonemic code, and the printing of the letters. For each, we first describe the descriptive statistics in the home-like activity (writing a guest list) and the school-like activity (writing dictated words). Then a series of t -tests comparing the two activities will be presented. Finally, in order to find whether mothers have a writing mediation style across tasks, we display the correlations between home-like and school-like activities on each mediation measure.

-----Insert Table 1 About Here-----

Table 1 refers to maternal general mediation characteristics. The descriptive statistics indicate that our sample exhibited sufficient variances on these measures on the two activities. The high mean scores on atmosphere ($\underline{M} = 2.74$, $\underline{M} = 2.42$) and cooperation ($\underline{M} = 2.42$, $\underline{M} = 2.25$) in both home-like and school-like writing activities respectively, indicate the typically positive tone and mood between the mothers and the children throughout the interactions. Along with these results we observe the low mean scores of discipline, especially in the home-like writing activity ($\underline{M} = 0.39$), showing that the mothers did not tend to enforce discipline during the interactions. The low mean scores on physical contact between mother and child ($\underline{M} = 0.20$, $\underline{M} = 0.38$) reveal that typically the parties did not touch each other. Note that writing interactions are less characterized by physical closeness, contrasting other literacy related mother-child interactions, like storybook reading (McNaughton, 1998).

The comparison between maternal mediation in the home-like vs. the school-like activities was tested by a series of t -tests. We found that the atmosphere was significantly better, the cooperation was significantly higher and the ambiance was significantly warmer on the home-like activity, when the mother helped the child to write the guest list. Other general mediation characteristics were significantly higher on the school-like activity. When helping their children to write dictated words, mother tended to demand more accuracy in shaping the letters, they gave their children more general and specific reinforcements, used more specific criticism, gave more instructions for correction and used more discipline remarks. Mothers touched their children more often on the school-like activity and the duration of mediation for each pair of words was longer when writing the dictated words.

In order to find whether mothers exhibit a consistent mediation style across the different activities, correlations were computed between the maternal mediation different measures. Table 1 shows moderate-to-strong significant correlations ($r = .40$ to $r = .71$) between maternal mediation in the home-like and school-like activities across most of the general mediation characteristics. The only exception to this was discipline, where the correlation did not reach significance. ($r = .28$).

-----Insert Table 2 About Here -----

Table 2 presents deals with maternal reference to orthography on the two writing activities. The low mean scores in all the measures across the two writing activities demonstrate mothers' tendency to either ignore these rules or to mention them without explanation. It is very prominent in reference to phonological-orthographic length $M = 0.01$ and $M = 0.10$ for home-like and school-like activities respectively. Even when the words were presented in a manner, which emphasized the length differences mothers, tended to ignore these phenomena. In spite the fact that many female names were written collaboratively on the guest list, mothers hardly referred to the female suffix /a/ spelled in Hebrew with the letter H when writing names ($M = 0.03$). The orthographic feature that received relatively more attention is reference to final letters $M = 0.52$ and $M = 0.73$ for home-like and school-like activities respectively. When helping their children complete the tasks, mother tended to at least name the letters properly, and so they probably named medial and final letters while scaffolding.

When comparing the two activities, the results in Table 2 show that even though the general rate of reference to orthography is rather low, still on the school-like activity, as expected, the scores are significantly higher in all the comparisons. Mothers referred more often to the length of the written words, to the spelling of

suffix marking feminine-singular words and to final/medial letters when mediating the writing of dictated words.

As to the consistency of mediation style across the different activities, the results on Table 2 show no significant correlations between maternal reference to phonology and morphology in the two activities ($r = -1.0$ and $r = .01$ respectively). Maybe mothers do not tend to refer to these orthographic regularities in general and they did referred to some extent to these rules on the school-like activity due to it's special nature, as the words were selected especially to provoke reference to these rules. Yet, on reference to final letters we did found a significant moderate correlation ($r = .60$). Mothers who referred more to final letters on home-like activity referred more to final letters on school-like activity as well.

-----Insert Table 3 About Here -----

Table 3 refers to maternal strategies in the two writing activities. The descriptive statistics indicate that our sample exhibited sufficient variances on these measures. On grapho-phonemic strategy, the mothers displayed a large diversity of strategies, ranging from around the lowest to near the highest on the writing guest list and dictated words. A similar result was found on printing scaffolding strategies where the mothers on the two writing activities varied almost throughout the entire scale.

The comparison between maternal mediation in the home-like vs. the school-like activities reveals no differences in maternal strategy of mediating the grapho-phonemic code between the two activities. The same results were found regarding printing scaffolding. Mothers generally used the same strategies when communicating the different steps in the process of encoding, encouraging their children to carry out those steps, and providing scaffolding to go through the process, when helping their

children prepare a guest list and when helping them write the dictated words.

Moreover, they gave their children similar levels of autonomy when writing the letters on the two activities. Table 3 presents high correlations between maternal strategies of mediating the grapho-phonemic code and the printing of the letters, in the home-like and school-like activities, $r = .88$ and $r = .83$ respectively.

In sum, the measure of maternal mediation on the two activities indicate that in terms of general maternal mediation characteristics, low SES mothers tend to behave similarly when mediating different writing tasks, still on the home-like activity the atmosphere and the cooperation are higher, while on the school-like activity all the directive indices are higher. As to reference to orthography, mothers generally pay little attention to these linguistic aspects; nevertheless they refer to them more often when writing dictated words. Lastly, when mediating writing to their children, low SES mothers use the same strategies of mediating the grapho-phonemic code and the printing of the letters, regardless the specifics of the task.

Discussion

The first aim of the current study was to explore whether mothers have a writing mediation style beyond context. We found that indeed mothers have a general across activity strategy of mediating writing, which is exhibited by the stability in their way of scaffolding the grapho-phonemic code and the printing of the letters, in the two writing tasks. This consistency across tasks can be explained alternatively in two ways that do not exclude each other. It may be that mothers' main writing strategy derives from their sensitivity to their children's knowledge of the written system, and so the nature of the tasks is less relevant in determining maternal strategy. This explanation is in line with Debaryshe, Buel & Binder (1996), who found that even if all the mothers helped their kindergartners to reach a readable letter irrespective of

their children's independent level of writing, still, mothers were responsive to their children's comprehension.

Alternatively, we claim that the mothers mediate writing according to their conception of the writing process, their culture (Kermani & Brenner, 2000), their pedagogical beliefs about teaching and about themselves as mediators (Feuerstein, 1998, Levine, 1993), and their general beliefs about their children's competence (Korat & Levin, in press). In line with this second explanation, we report in a previous study that mother's style of mediation is not persistently related to her child level of literacy, some mothers mediate in their children's Zone of proximal development while others do not (Aram & Levin, submitted a).

Most of the general characteristics of the mediation like atmosphere, child's cooperation, maternal reinforcements criticism, and demand for accuracy as well as physical contact between the parties, were found to be correlated between the two activities. These results strengthen the conclusion that maternal style of mediation is beyond context. It is interesting to inquire whether this style characterizes other teaching interactions like solving problems (Gonsalez, 1996), and maybe parts of it are even broader and have their effects on the mother-child relationship in general (Klein, Wieder & Greenspan, 1987).

The second aim was to compare maternal mediation style on two writing tasks, home-like vs. school-like activities, trying to figure which activity will lead to a more fruitful interaction in terms of mother-child relationship and mediation of writing. As expected, we found on the home-like activity a warmer, less pressured atmosphere, and higher child's cooperation. Moreover we found that all the intrusive maternal behaviors like demand to accuracy in shaping the letters, criticism and discipline remarks were higher on the school-like activity. Both reinforcement and physical

contact, typically interpreted, as supportive behaviors can also be perceived as intrusive, as they encourage children to be dependent on external support.

Our results are in line with previous studies that found maternal mediation to be higher on more home-like activities where mothers feel more free and confident (e.g., Gonzalez, 1996; Kermani & Brenner, 2000; Kermani & Janes, 1999). Still, there is a need to distinguish between directiveness and intrusion (Girolametto, 1995; Kermani & Brenner, 2000). We suggest that directiveness is necessary and promote the child while intrusiveness slow him/her down. Intrusive behaviors, like criticism, frequent reinforcement, demand to accuracy and discipline remarks, may limit the child's initiative and encourage dependency. In a teaching situation when children as novice are unable to complete the mission on their own and parents can help them through the task, directiveness is essential. We found no differences between the two activities in maternal strategies of mediating the grapho-phonemic code and the printing of the letters. Mothers were directive, meaning that they scaffolded their children through the writing process and helped them complete the assignments. Such directiveness may be correlated with children's performance and learning (Aram & Levin, submitted, a; Hintsinger & Jose, 1995). Mothers directed their children through the two writing activities, but intrusive behaviors appeared less on the home-like writing activity, giving a clear advantage to more familiar activities in the domain of early writing.

As to reference to the Hebrew orthography, we found as expected more maternal reference to orthography in the school-like activity; still in general, the frequency of these behaviors was low across the two activities especially reference to phonological orthography length. This may derive from mothers' natural tendency to overlook this Phenomenon in their own spontaneous writing.

Reference to phonological-orthographic length characterizes the process of reading and writing acquisition, as children refer to these regularities in their emergent writing (Levin & Korat, 1993; Levin, Korat, & Amsterdamer, 1996). To broad - McNaughton (1998) argues that parents' interaction with their children is a part of the cultural discourse. As it is unnatural for adults to relate to letter-sound association when reading a story, they do not tend to do so when reading to their children. We reiterate the same argument in regard to writing; mothers refer in their writing mediation to the aspects that are most salient in their natural writing like the phonological orthographic mapping and to retrieval of letters names and shapes and less to phonological length of the words. Mother's low SES may be an additional possible reason for the low rate of reference to orthography. There is evidence that middle SES mothers assume more comprehensive teaching roles, comparing to low SES mothers (Steward & Steward, 1973) and that they refer to more aspects of the tasks in their mediation (Diaz, Neal & Vachio, 1991). We suggest that possibly mothers from middle SES would refer more to these orthography regularities as they mediate writing, because of their broader perception of the teaching task and of themselves as mediators.

Reference to orthography appeared less on the home-like activity, due to two optional reasons. First, on the school-like activity the words were selected and presented in pairs to provoke reference to orthography. It is reasonable to assume that this presentation was fruitful, and mothers indeed referred more to orthography on this task. Second, the home-like activity, writing of the guest list involves two foci: the creating of the text that requires deciding whom to invite, and the writing of the names. The attention of the mother and her child was split between these activities and so reference to orthography received less notice in

comparison with the more school-like activity writing the dictated words, where the mother and the child focused only on the writing process.

The educational implications of our study regard parents as well as kindergarten teachers. Since preschool children are unable to analyze print sufficiently to discover the alphabetic principle on their own, some forms of guidance by adult are necessary. By participating with children in literacy events, adults play a very important role in kindling children's interest in reading and writing. Parents and kindergarten educators have to be encouraged to participate children particularly in every day functional writing activities. Parents have to scaffold their children through the writing process, be more directive, sensitive to their children's level of competence and provides guidance accordingly, yet, they have to be less intrusive, and to gradually withdraws their support and lets the children perform more independently. Our study, in line with other general literacy studies (Barclay, Benelli & curtis, 1995; Nel, 2000), demonstrates the advantages of home-like over school-like literacy activities in the writing domain. Kindergartners possess knowledge about variety of text types (Zecker, 1999), they should be involved with their parents and teachers in writing different texts like shopping lists, letter texts, invitations, diary, notes to remember, recipes and signs. As children engage in the writing process, they develop their writing skills and become skillful writers.

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Table 1

General Mediation Characteristics: Means, Standard Deviations, Ranges,Correlations between the Two Writing Activities and Ts-test Indices Comparing them(N = 41)

		Means	SD	Min	Max	t	r
Measures	Activity type						
Atmosphere	Home-like	2.74	0.42	1.33	3.00	-3.94***	.49***
	School-like	2.42	0.57	1.00	3.00		
Cooperation	Home-like	2.42	0.53	1.00	3.00	-1.70*	.41**
	School-like	2.25	0.63	1.00	3.00		
Letters' accuracy	Home-like	1.13	0.25	1.00	2.00	2.50**	.71***
	School-like	1.24	0.41	1.00	2.75		
Contact with the child	Home-like	0.20	0.44	0.00	2.00	2.10**	.40*
	School-like	0.38	0.51	0.00	2.00		
Duration	Home-like	1.43	0.84	0.46	4.33	4.71***	.65***
	School-like	1.98	0.96	0.75	4.38		
General reinforcement	Home-like	1.10	0.96	0.00	5.00	2.11**	.51***
	School-like	1.48	1.29	0.00	6.00		
Specific reinforcement	Home-like	2.15	1.97	0.00	7.00	2.36**	.67***
	School-like	2.90	2.73	0.00	11.25		
Specific criticism	Home-like	1.13	1.21	0.00	5.00	3.68***	.62***
	School-like	2.37	2.69	0.00	14.75		
Discipline	Home-like	0.39	0.72	0.00	2.67	2.88***	.28
	School-like	0.98	1.31	0.00	7.25		

- * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 2

Reference to Orthography: Means, Standard Deviations, Ranges, Correlations
between the Two Writing Activities and T-test scores Comparing them

Measures	Activity type	Means	SD	Min	Max	df	t	N of pairs	r
Phonology ¹	Home-like	0.01	0.04	0.00	0.20	40	-2.43*	41	-.10
	School-like	0.10	0.62	0.00	2.00				
Morphology	Home-like	0.03	0.13	0.00	0.50	28	-4.22***	29	.01
	School-like	0.55	0.61	0.00	2.00				
Final letters	Home-like	0.52	0.60	0.00	2.00	32	-2.36*	33	.60***
	School-like	0.73	0.62	0.00	2.00				
Rhyming	Home-like ²								
	School-like	0.34	0.62	0.00	2.00				

- * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

¹ Phonology in this table is a short name for Phonological-orthographic length.

² Rhyming was assessed only for the school-like activity.

Table 3

Maternal Strategies: Means, Standard Deviations, Ranges, Correlations between the

Two Writing Activities and T-test scores Comparing them (N = 41)

		Means	SD	Min	Max	<u>t</u>	<u>r</u>
Measures	Activity type						
Grapho-phonemic code	Home-like	3.21	1.04	1.43	5.56	-1.13	.88***
	School-like	3.11	1.20	1.00	5.17		
Printing scaffolding	Home-like	1.64	0.85	0.18	3.00	-0.30	.83***
	School-like	1.61	0.83	0.00	3.00		

- * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Footnotes

1. Hebrew words are spelled by International Phonetic Alphabetic symbols.
2. The standard spelling is displayed by capital letters.

