This report discusses the outcomes of a qualitative study conducted to investigate how preschool children with hearing impairments learn about literacy within a school setting. Seven preschool children with hearing impairments were observed in their school setting two days a week for nine months for a total of 283 hours of observation. One class used total communication (primarily a manual sign system for English, audition, lip reading, and speech) and one class used oral communication (audition, lip reading, and speech). Drawing and writing samples from the children and interviews with the teacher and parents provided additional data. Data were analyzed inductively and patterns in the children's actions related to their developing literacy were identified. A key finding was that the children were active decision makers in their literacy learning. Specifically, the children made decisions concerning the literacy events in which they would participate and how they would participate. Although the amount of time varied for the children individually, each child considered literacy events important enough to occupy a substantial amount of their free play period. The children's most frequent choices of literacy events during free play included reading books and writing in the researcher's notebook. (Contains 23 references.) (CR)
Literacy Learning as a Decision-Making Process for Hearing-Impaired Children

Claire J Rottenberg
Bar-Ilan University
Ramat Gan, Israel
Abstract

A qualitative study was conducted to investigate how preschool hearing-impaired children learn about literacy within a school setting. Seven preschool hearing-impaired children were observed in their school setting two days a week for nine months. Descriptive and interpretive field notes on the observations constituted the primary source of data. Drawing and writing samples from the children and interviews with the teacher and parents provided additional data. Data were analyzed inductively and patterns in the children’s actions related to their developing literacy were identified. A key finding was that the children were active decision-makers in their literacy learning. Specifically, the children made decisions concerning the literacy events in which they would participate and how they would participate. The findings indicate that development of literacy in young hearing-impaired children is enhanced by teachers who provide opportunities for choice in literacy learning.
Literacy Learning as a Decision-Making Process for Hearing-Impaired Children

It was playtime in the preschool class. Jon went to the bookshelf and, after looking over several books on the shelf, chose one and went to the table in the back of the room to read by himself. Janine, during this time, moved the chairs from the side of the room and set up a reading circle in the center of the room. Billy helped Janine move chairs and then went to the bookshelf, looked at some of the books, and chose four or five to place on one of the chairs. Janine and Billy sat down and started looking at books. Jon glanced up from his reading to watch Janine and Billy. Noting the fun they seemed to be having, Jon took his book and joined them. After a minute or two, however, Jon decided to leave. He took his book to the table to read by himself again. As Jon started to walk away, Billy grabbed Jon’s book and put it on the book chair in the reading circle.


Billy: You want it, you have to sit down.

Jon: [After taking another book from the shelf and walking towards the table] So, I got this one!

Janine pushed Jon’s chair away from the reading circle. When Jon noticed this, he returned with his book to the reading group.
The complexity of decision-making in a literacy event can be seen in the actions of Billy, Jon, and Janine in the above literacy vignette. Decisions were made by the children concerning which books to read, how to organize the literacy event, how to participate in the event, how to interact with peers, and so on. Not one of these actions was accidental; rather, the children made conscious decisions concerning their involvement in the event.

Researchers studying early literacy have noted that preschool children are active decision-makers in literacy learning and they learn to read and write through their own volition (Brenna, 1995; Covarrubias, 1988; Morrow, 1989; Rasinski, 1988; Williams, 1991; Williams & McLean, 1997).

Children's involvement in written language, though typically embedded in social situations and interactions, is essentially self-initiated and self-directed. Most of the time, young children choose when to write, what to write, and how to do it . . . . most young children seldom write as the result of a direct order or as part of anything resembling an assignment. (Morrow, 1989, pp. 144-145)

As children engage in literacy events, they decide not only when to participate, but also how to participate. Their responses to written language are systematic, organized, and purposeful choices (Hall, 1989; Harste, Woodward, & Burke, 1984). Children are deliberate in their responses to written language and, to understand the complexity of their decision-making and intent, it is essential to view the process of children becoming literate (Hall, 1989; Rowe & Harste, 1986).
The research reported in this article focused on the processes of young hearing-impaired children as they engaged in literacy events. Although much is known about literacy development of hearing children, few studies have focused on literacy learning of special populations, such as the deaf (Clarke, 1993; Conway, 1985; Cook & Harrison, 1995; Ewoldt, 1985, 1987, 1990; Maxwell, 1984; Rottenberg, 1991; Rottenberg & Searfoss, 1992; Williams, 1991, 1994; Williams & McLean, 1997). Research on the process of literacy learning for special populations can support and extend the knowledge base on literacy learning in general, as well as provide insight into literacy learning for children who may have limited access to oral language. For this reason, hearing-impaired children of hearing parents were selected as the focus of the current research.

**Method**

A qualitative study was conducted in two preschool classes for hearing-impaired children. Each class was observed for five hours per week over a nine-month period for a total of 283 hours of observations. The researcher, referred to in first person throughout the remainder of the article, acted as an observer-participant for the entire period of data collection.

**Site**

The research was conducted in a public elementary school in a large Southwestern suburban school district. Children from two preschool hearing-impaired classes participated in the research, a total communication group in the morning and an oral group in the afternoon. The children in the oral class communicated using audition, lipreading, and speech, while the children in the total
communication class communicated using primarily a manual sign system for English (Signed English). The sign system often was supported with audition, lipreading, and speech; however, most of the children in this class had profound hearing losses, little intelligible speech, and limited lipreading ability.

The two classes in the study shared a classroom and were taught by the same teacher. The school day for each class lasted two hours and forty-five minutes. Each day began with a fifteen minute free play period followed by opening routines. This activity was then followed by another thirty minute free play period. The day continued with art, recess, snack, and ended with book time.

Free play areas in the room offered the children opportunities to engage in a variety of literacy events. Small toys included literacy-related items such as alphabet puzzles. The kitchen area had a variety of items with print on them (e.g., food boxes, stove with temperature control words written on it). An interesting item along the wall in the kitchen area was a set of cardboard alphabet blocks strung together; these blocks occasionally attracted the children's attention during playtime.

Besides the play area, the children had access to the book corner during free play time. They could take books to read by themselves or to read with peers or with adults in the room. The teacher also allowed them to write in my notebook during this time.

Participants

Four children from the total communication class and three children from the oral class participated in the research. The ages of the children at the start of the research ranged from three years,
four months to four years, eleven months. The degrees of hearing loss for the children were moderate (Jon, Billy), severe (David, Janine), and profound (Darrell, Michael, Jeffrey). In addition to signs and speech, the children used gestures, body movements, and facial expressions to communicate. Gestures included pointing and invented signs; body movements were actions such as head nodding, acting out expressions and situations, and physically communicating with others through taps, pulls, and other similar actions; facial expressions included lifted eyebrows, open mouths, and grimaces. Unlike hearing children, these gestures, body movements, and facial expressions did not just supplement the children's verbal communications; for most of the hearing-impaired children, they constituted a primary form of communication.

Researcher's Role

My role as researcher during the nine months of data collection was one of primarily an observer-participant. During routines and group structured activities (e.g., music, physical therapy), I observed the children and wrote field notes on the observations, especially as they related to literacy learning. Occasionally, I assisted the children or the teacher with group activities. During free play, I wrote field notes while also interacting with the children. The interactions included talking with the children (orally and/or in Signed English) as they played with dolls, blocks, or other toys, and reading books with the children. My participation was greatest during book time when I read with the children or interacted with them as they wrote and drew in my notebook. Involvement in book reading included labeling pictures for the children, asking the children what words in a
book said, telling or reading stories, and listening and watching the children as they read books.

My presence in the room as a researcher affected the children's developing literacy in two ways. First, I provided demonstrations of functional literacy. Second, the accessibility of my pencil and notebook provided the children with opportunities to create their own written messages. As I wrote my field notes, the children often interacted with me. The children watched as I wrote and frequently commented on my writing, particularly if they recognized their own or their peers' names in my notes. Anytime the children indicated an interest in using my pencil or notebook, I gave it to them, and, thus, they had many opportunities to create their own drawings and writings. During these activities, my role changed to that of a participant as I became the principal agent of the children's opportunities to write. Although these were not the only opportunities the children had to write (art activities also offered opportunities for written expression), they occurred on a daily basis and without instruction. I provided the children with no directions for their writing activities in my notebook and, unless they requested them, no specific models for writing.

Data Collection

From September until February detailed field notes were written on observations of the children in the school setting. These included descriptions of what the children did and said orally and in signs, the activities that occurred throughout the day, and what the teacher and other adults said or did as they interacted with the children. In addition to descriptive notes on the children's verbalizations (oral and
in sign), descriptions and interpretations of the children's nonverbal communications, including gestures and facial expressions, were documented.

From February until April, the field notes focused on literacy events and the children's engagement in those events. There was a planned gradual reduction in notes on classroom routines, play periods in which the children did not seem to engage in literacy-related events, recess time, and music lessons. Literacy events, however, were described in detail.

Drawing and writing samples from the children were collected throughout the study. These samples were done in a spiral notebook and most frequently with a mechanical lead pencil. A total of 133 drawing and writing samples was collected over the nine months of the research.

Data Analysis

The original research question, "How do preschool hearing-impaired children of hearing parents learn about literacy within a school setting?", provided an initial focus for data analysis. The entire data set consisting of field notes on observations, drawing and writing samples, and notes on informal conversations with the teacher and aide was read and searched for recurring patterns in the children's actions related to their literacy knowledge and learning. After reading and searching through the entire data set, possible patterns were listed and categorized. Assertions were then formulated based on the patterns. To confirm or disconfirm the validity of these assertions, the entire data set was once more
searched, this time for excerpts that either supported or refuted each of the assertions.

Findings

The children in the study seemed to realize the importance of literacy in their lives and took engagement in literacy events seriously. Literacy was central in their school lives and they expressed the value they placed on literacy through reading, drawing, and writing activities. Throughout the school year, the children controlled their own literacy learning through active decision-making. Questions the children constantly faced and made decisions about each day included: In which literacy events would they participate? With whom would they participate? How much involvement would they have in literacy events? How would they participate? Specifically, the children made the following types of decisions that affected their literacy learning:

1. The children chose the literacy events in which they would engage.
2. The children made decisions concerning the types of interactions and involvement they would have during literacy events.

Choice of Literacy Event

The children had opportunities each day to choose among literacy events. Most days each class had two free play periods and a time for free selection of books. A key decision the children made was the choice of literacy-related activities over other activities during free play.

Although the amount of time varied for the children individually, each child, at times, considered literacy events important enough to
occupy a substantial amount of their free play period. The children's most frequent choices of literacy events during free play included reading books and writing in my notebook.

Often, a child's choice of a literacy event during free play was contagious. One child would take a book or start writing and a second child would join in and, before long, all the children would be sharing in the event. In the excerpts below, note how the decision to engage in literacy events during free play spread from one child to the next.

1. Darrell decided to do some writing today during free play time. He came up to me and pointed to my pencil, so I gave him the pencil and opened my notebook to a blank sheet of paper. He wrote on a sheet and then David asked for a turn. Next Jeffrey wanted a turn.

2. At the start of free play time, David asked Cathy, the teacher, if he could draw on the chalkboard. Cathy placed a large chalkboard (about eight feet by six feet) against the front wall and gave David some chalk. David drew a self-portrait and wrote his name. Jeffrey and Michael joined David. Each boy took possession of one-third of the chalkboard for drawing and writing.

Although reading books, drawing, and writing were the children's most frequent choices of literacy events during free play, those were not their only choices. For example, Jon loved playing with the alphabet puzzle and sometimes he would spend all of his
free play time in a day trying to master it. For some of the other children, experience charts were of interest during free play time.

**Types of Interactions and Involvement**

The children made decisions concerning the types of interactions they would have during literacy events. Often that decision was whether literacy events would be personal activities or social activities. For example, in the excerpt below, note how the children encouraged others through verbal invitations or body actions to share in a literacy event.

David wanted to write so I laid my notebook on the floor. Darrell quickly finished snack and joined us. He then signaled "Come" to Jeffrey and Michael who were sitting in the book corner reading. They, however, were totally engrossed in their books and ignored Darrell. David then signed "Come" while looking at Jeffrey and Michael who continued to read. Darrell, determined to make this a whole group activity, went over to Michael and tapped him and told him to come join the writing group. When he finally realized that his efforts to involve Michael and Jeffrey were futile, Darrell rejoined David and the two boys continued their writing, taking turns and sharing their work with each other.

Frequently, the children alternated between social interaction and private activity during literacy events. In each of the excerpts below, a child spent part of a literacy event interacting with someone else and part of the time in quiet, private reflection or enjoyment. In
some cases, it appeared to be a deliberate decision, but in other cases, it seemed to be a matter of indecision.

1. Billy took the copy of *Bambi* from the bookshelf and sat down. He started to read the book and then looked at me. I asked him if he wanted me to read it to him and he said, “No,” and turned his back to me. After about a minute, Billy changed his mind and turned around to face me and he started to read to me.

2. Jon took a book and announced that he wanted to read by himself (“I read myself”). He started to read and tapped on his book until I paid attention to him.

   Jon: I wanna read it by myself.

Jon alternately read his book silently and looked at the book Cathy was reading to Billy.

The children often decided if they would attend to or ignore teacher interventions during literacy events. When they read with the children, Cathy, the teacher, and Eileen, the teacher’s aide, often asked the children to label pictures. Sometimes the children chose to be very cooperative and they labeled pictures as they went through the books, but, at other times, they ignored the teachers as if they had not heard them or seen their signs.

Billy was reading with Eileen and Janine was reading with Cathy during book time today. As they read, Eileen asked Billy what different objects in his book were and Cathy did the same with Janine. Eileen allowed Billy to do much of the talking and he
cooperated with her requests for labeling. Janine, on the other hand, seemed oblivious to Cathy; she repeated few of the words that Cathy said and she kept trying to turn the pages of the book before Cathy was ready. At certain points, Cathy pointed to words in the book, but Janine did not seem at all interested.

During group activities, the children decided on the degree of attention they gave to the activity and to the adult leading the activity. In the excerpt below, note that the children decided to participate in only particular aspects of the class routines or group activities, namely, the activities related to literacy.

Cathy wrote a story on the chalkboard with Janine about activities in her morning nursery school. Janine did not pay attention while Cathy wrote the story and she had no interest in reading the story. However, when Cathy asked her to find certain letters in the words from the story, Janine perked up and complied with Cathy's request. Jon, who had been watching Cathy until this point, had the opposite reaction; he paid attention during the writing and reading of the story, but lost interest when Cathy began focusing on the individual letters.

The children also made decisions concerning how they would engage in literacy events. They were deliberate in the processes they employed when reading, drawing, or writing and often their products were well-planned and organized. For example, when
reading books, the children decided whether to vocalize or sign or whether to label pictures or tell a story as they read.

The children often decided in advance what their written products would look like and how they would achieve that product. The excerpt below helps to illustrate how the children planned and organized their written products by being selective about which drawing and writing tools to use, deciding how to use the tools they chose, and determining how to manipulate space on their paper.

Michael was writing his name on his chalk drawing. He wrote an M and then erased it with wet chalk. He wrote M again and then asked me if the next letter in his name was i. When I told him it was, he wrote it and then asked me to spell the rest of his name as he wrote it. When he got to the corner of his paper, Michael manipulated the letters around the corner so that the last three letters curved up from the bottom of the paper.

Conclusions

Studies by other researchers (Cook-Gumperz & Corsaro, 1977; Robinson, 1990; Rowcroft, 1989) indicate that freedom of choice in literacy events is rare in preschool classrooms. These activities usually are teacher-selected and controlled and children have few opportunities for decision-making during these events. Based on the findings from the current study, as well as studies by other researchers (Andrews & Gonzales, 1991; Conway, 1985; Covarrubias, 1988; Ewoldt, 1987; Harste, Woodward, & Burke, 1984; Williams, 1991; Williams & McLean, 1997), providing children
with opportunities for decision-making during literacy events is crucial to their development of literacy. The classroom environment in this study was one in which the children felt safe to make decisions and take risks during literacy events. As a result, the children were actively involved in their literacy learning in a way that might not have occurred if they had not had opportunities to experiment with written language.

Another aspect of decision-making that is significant to literacy learning is the concept of negotiation. The children in the current study often had opportunities to negotiate their involvement in literacy events. For example, during book reading, while ignoring the teacher's or aide's comments but retaining interest in the shared activity, the children could participate in the events on terms comfortable for them. The children were in control of the literacy demonstrations to which they attended and, thus, they could control their own literacy learning.

The findings from the current research indicate that development of literacy in young children is enhanced by teachers who provide opportunities for active decision-making by the children and create environments where risk-taking is encouraged. Implications of these findings for practice include designing classroom environments and curriculum that offer children varied opportunities for choice. For example, classrooms could be littered with literacy materials, such as book corners, writing centers, literacy-related games and toys (e.g., puzzles), and literacy materials in play areas (e.g., cookbooks in a kitchen center). The curriculum should include extended amounts of time for free play when young children
can make decisions concerning their participation in any one of these literacy-rich centers. Furthermore, teachers must provide opportunities for and encouragement of risk-taking during literacy events. As seen in this study, children need opportunities to learn about written language through their own experimentation and discovery. Given opportunities for choice in risk-free, literacy-rich environments, growth in literacy learning is inevitable, and we as educators must strive to provide just such environments for all children.
References


**REPRODUCTION RELEASE**

*(Specific Document)*

### I. DOCUMENT IDENTIFICATION:

<table>
<thead>
<tr>
<th>Title:</th>
<th>Literacy Learning as a Decision-Making Process for Hearing-Impaired Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s):</td>
<td>Claire J Rotenberg</td>
</tr>
<tr>
<td>Corporate Source:</td>
<td></td>
</tr>
<tr>
<td>Publication Date:</td>
<td></td>
</tr>
</tbody>
</table>

### II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents:

**PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY**

________________________________________________________

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

**Level 1**

- [ ]

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

The sample sticker shown below will be affixed to all Level 2A documents:

**PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY**

________________________________________________________

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

**Level 2A**

- [ ]

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only.

The sample sticker shown below will be affixed to all Level 2B documents:

**PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY**

________________________________________________________

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

**Level 2B**

- [ ]

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only.

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

---

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

**Signature:**

Claire J Rotenberg

**Printed Name/Position/Title:**

Claire J Rotenberg/Lecturer

**Organization/Address:**

Bar-Ilan University, Ramat Gan, Israel

**Telephone:**

011-972-2-623-4327

**Fax:**

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

<table>
<thead>
<tr>
<th>Publisher/Distributor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
</tr>
<tr>
<td>Price:</td>
</tr>
</tbody>
</table>

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

<table>
<thead>
<tr>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
</tr>
</tbody>
</table>

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
4483-A Forbes Boulevard
Lanham, Maryland 20706

Telephone: 301-552-4200
Toll Free: 800-799-3742
FAX: 301-552-4700
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com

EFF-088 (Rev. 2/2000)