THE WORLD UNDER MY FINGERS

PERSONAL REFLECTIONS ON BRAILLE

Second Edition

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INTRODUCTION

All parents yearn for their children to be happy and healthy and to grow up to live satisfying and productive lives. If it were possible to do so, we would arrange for them to be attractive, intelligent, ambitious, sensible, and funny—all the traits, in short, we wish we could boast and never have enough of, no matter how talented we are. Obviously our children do not grow up to exhibit all these traits, but most of them do well enough with the skills and attributes we do manage to impart to them. Sometimes, however, a child must come to terms with very real difficulties: frequent or serious illness, mental handicaps of one kind or another, or physical disability. The parents, too, must then face the limitations or alterations that such problems place on our children and on our dreams for them. The natural instinct is to feel that the

more closely the child can be taught to mimic the behavior of so-called normal youngsters, the better off he or she will be in the long run, because the differences will be less obvious. If we are honest with ourselves, we usually find that a part of this reaction also comes from the feeling that we will not have to confront the problem as directly and painfully if the trappings of disability are kept to a minimum.

However, successful adults who have coped with various disabilities for many years have a somewhat different notion. We have found that striving for the independence and richness of normal adult experience is far more satisfying and constructive than trying to use the methods of those who have no obvious disabilities, even though such striving requires mastery of alternative techniques and skills.

In the case of people whose vision is so poor as to make it difficult or impossible to read regular print for extended periods of

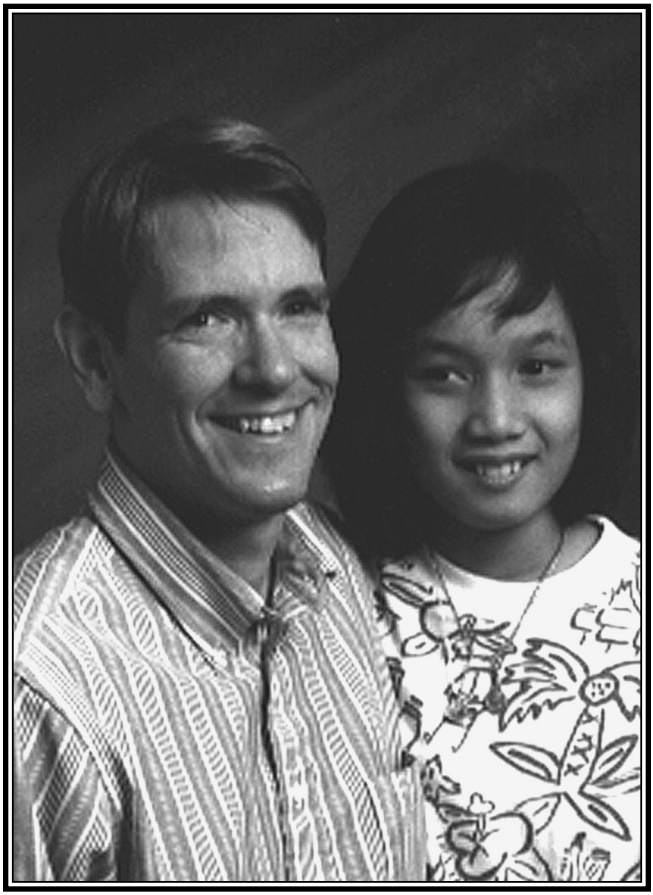
time and to write accurately and legibly, it is extremely useful to learn to read and write using Braille. When learned early and taught by a knowledgeable teacher, Braille is an invaluable tool for those who cannot use print comfortably for extended periods of time or in all kinds of light.

Young as he is, Jeremy already enjoys Braille.

WHY LARGE TYPE?

The type size used in this book is 14-point for two important reasons: One, because typesetting of 14-point or larger complies with federal standards for the printing of materials for visually impaired readers, and we want to show you what type size is helpful for people with limited sight.

The second reason is that many of our friends and supporters have asked us to print our paperback books in 14-point type so they too can easily read them. Many people with limited sight do not use Braille. We hope that by printing this book in a larger type than customary, many more people will be able to benefit from it.



Mingkhwan and her father, Edwin Zehner.

Braille Won't Bite

by Mingkhwan Zehner

Don't be afraid of Braille.
It won't bite you.
It just licks your hand
and gives you more information.

Mingkhwa spent her early years in a school for the blind in Taiwan. She came to the States with her adoptive parents when she was about eight years old. She currently lives and attends school in Illinois.

Keeping Within the Lines

by Marc Maurer

Editor's note: Marc Maurer is president of the National Federation of the Blind. He is a graduate of Notre Dame and the University of Indiana Law School and a member of the bar of several states and the United States Supreme Court. He is also the father of two. Braille is an important tool for him in his career and in his home. Here is what he has to say about some of his early experiences with Braille:

The kindergarten in the public school that I attended when I was five left me with a feeling of alienation and frustration—though I didn't know the words to describe the problem. My teacher was a kind and gentle lady, who tried to help me, but I presented difficulties which she felt unable to solve. Many

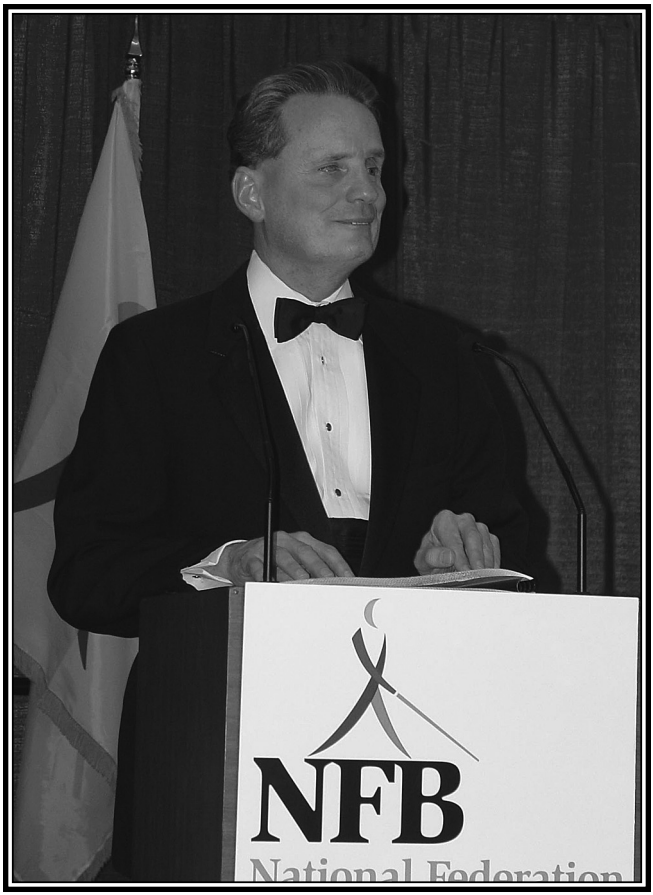
of the kindergarten activities were done visually. Learning colors, drawing, recognizing letters and numbers, naming the geometric shapes—all of these were presented visually. Some kindergarten tasks could be done quite effectively without sight—counting, reciting the alphabet, remembering your own address and telephone number, listing in order the days of the week or the months of the year. But in the drawing classes I was unable to keep within the lines, and keeping within the lines was important.

I learned the shapes of the print capital letters from the building blocks we had, and I came to know the forms of numbers in the same way. By the time kindergarten had come to an end, I had learned to print my name, M-A-R-C, but I usually got it backwards C-R-A-M. As I viewed it, the experiment with kindergarten was only marginally successful. Although it was never stated, the lesson of kindergarten was unmistakable: blind people are different from others; they require kindness; they can't do the ordinary

things that other people do; they can't keep within the lines.

My parents decided that I would attend the school for the blind even though doing so meant that I would be away from home during most of the school year. Of course I could return home for holidays and during some weekends, but the rest of the time I would live in a dormitory with my classmates at the school. At the age of six I left home. The school for the blind was over a hundred miles from our house. It was the beginning of a different kind of life. Because I was at that time almost totally blind, I was expected to learn Braille. We started the learning process with flash cards. Each card had a straight line of Braille dots across the top and a single word in the center. I still remember the first flash card I ever read; it contained the word "go."

Each of us was given our first reading book, the primer about Dick and Jane and Spot. It was the first Braille book I ever had in my hands. My book seemed to be about a



Dr. Marc Maurer is a dynamic public speaker. Here, he uses a Braille text to deliver a speech to an audience of thousands at the annual banquet of the National Federation of the Blind.

foot square and about a half an inch thick. The teacher told us to open our books to page one. My desk was in the first row, about the sixth or seventh from the front. The first child in the row was asked to read page one. The teacher corrected any mistakes that were made.

Then the second student was asked to read the same page. Again, when there were mistakes, the teacher corrected them. The lesson continued in the same manner. Each student in the first row was asked to read page one. By the time the teacher got to me, my job was clear, and my performance flawless. With my fingers on the page, I spoke the words of page one with never an error or hesitation. The teacher praised me highly and asked me to come to the front of the room. She produced a gold star from her desk drawer and pasted it to page one of my book. She told me to take my book home and show it to my mother. This is exactly what I did. On Friday night after the journey home I proudly produced my primer, opened it to page

one, and recited the words which appeared on the page.

My mother is a properly suspicious woman. She had learned Braille in the years before I attended school because she thought it might be helpful to me. She asked me if she could borrow the book, and of course I gave it to her. Later during the weekend she brought me a page of Braille and asked me to read it. Without much concern I confessed that I could not. My mother told me that it was an exact copy of page one of my book. I had memorized the words, but I was not able to read them.

During the summer between my first and second grade years, my mother took matters in hand. She told me that I must learn to read, and she said that she would teach me. For an hour every morning I was going to study Braille. I complained. The other kids got to go outside to play, but I could not. Nobody else had summer school at home—only me. But none of my griping did

any good. My mother had made up her mind; I was going to learn to read.

When I returned to the school for the blind for second grade, I discovered the library of Braille books, that collection of sweet-smelling Braille volumes almost a foot square and about two and a half inches thick. During the next four years I read every book that the librarian would let me have. I developed the habit of reading at night. Blindness has some advantages. I would slide the book under the bed sometime during the evening. Bedtime was 8:00. The house parent made his rounds between 8:30 and 8:45. I could hear his shoes coming down the hall and then receding in the distance. When the footsteps had faded, the book came out. No light is needed for Braille. Sometimes it was cold, but the Braille book would fit under the covers.

I tried the same system at home, and it worked most of the time. When I got caught, which happened occasionally, my mother

spanked me. The punishments were fair, but the reading was worth it. Although I complained bitterly about learning Braille, I am deeply grateful to my mother for insisting that I learn it. How fortunate I am that she understood the necessity for me to read. How fortunate I am that she was persistent and demanding. How fortunate I am that she had learned Braille herself and was able to teach me.

Today we in the National Federation of the Blind do much to help make Braille available to blind students and to encourage the teaching of Braille to both children and adults who are blind. But this is not how it has always been. At one time Braille was regarded as inferior, and all too often today it does not get the attention it deserves. I could not have done much of my work as a lawyer without Braille. When my children were small, I read to them most evenings. They enjoyed the stories, and I enjoyed reading to them as much or more. How different my life would have been without the ability to read

Braille. How different it can be for the children of this generation if we give them the chance to learn. The message should not be that blind people are different and unable to take part. Even though I was not able to draw, my mother felt certain that I could keep within the lines. We in the National Federation of the Blind are doing what we can to make this promise and challenge come true.

The Chance to Read

by Eric Duffy

Editor's note: Eric Duffy is director of field services for the National Federation of the Blind of Ohio. He and his two boys live in Columbus. Braille is deeply important to Eric in his work and family life, but there was a time when it looked as though Eric would be denied the right to learn it. Here is his story:

As a young child I enjoyed being read to. Whenever I could persuade anyone to sit down with me and a book, I was delighted. I particularly remember *Peter Rabbit*; *The Cat in the Hat*; and of course the classic, *Mother Goose*. When we were very small, my little sister Barb and I would pick up our books and pretend that we were reading. Sometimes we read to ourselves, and sometimes we read aloud to anyone who would listen.

I memorized things quickly, so pretending to read was easy for me. Barb could pick up any book and, by looking at the pictures, tell the story. I knew, however, that it wouldn't be long before Barb would no longer be pretending. She would be able to read books, newspapers, and everything else just as the rest of our family could.

Eventually the day came when Barb began to read. She began to recognize the letters of the alphabet and then to sound out words. That is when I began to recognize that my blindness really might be a problem. I was the big brother, and I should have started reading before she did. I began asking my parents a lot of questions: how am I going to read? Am I going to go to school?

My parents explained that I was going to go to a special school for blind children. They said that I would learn to read and write Braille. Of course, I had no idea what Braille was. In order to give me some notion of the code, my mom punched small holes into a

sheet of paper with a pencil. Obviously, these holes made no sense to either of us, but at least I was comforted by the knowledge that I was going to learn to read.

The time came when my mother took me to the Ohio State School for the Blind. I was given a variety of tests, most of which I do not remember. However, what my parents and the school officials did with the results of these tests might well, under other circumstances, have had a dramatically negative effect on the rest of my life. Because I have mild cerebral palsy, my parents were told that I would probably never learn to read and write Braille. But when I started school, I did not know that I was not supposed to be able to read and write Braille. No one bothered to tell me what I could not or would not want to do, and I can only assume that my first-grade teacher chose to ignore the pronouncements of the experts. She simply gave me the opportunity to learn to read and write with the rest of my class. I started school in April,

and by June I was reading and writing as well as anyone else in my class.

Today I use Braille in every aspect of my life. At home I label food items, cassettes, and compact discs. Braille reading is essential for playing board games such as Scrabble and card games such as Euchre. On the job I use Braille for note taking, writing down telephone numbers, and labeling file folders. I cannot even begin to name all the ways in which I use Braille at home and on the job.

Today I take my ability to read and write Braille for granted. But it frightens me to realize that I was almost denied the opportunity to learn it. Here are the comments of the Ohio State School for the Blind clinic evaluation team:

> "Eric was a very cooperative boy who had difficulty walking. Although he has some vision, it does not appear to be adequate for reading any fine print. Developing usable Braille skills may be rather difficult for Eric because of his poor manipulative

skills. His chief channel of learning will most likely be the auditory channel. Eric exhibits readiness for a beginning program for visually handicapped children."

- Educational Specialist

This evaluation almost led to my not learning Braille. I know for certain that some blind students today are not learning Braille because of evaluation results like mine. My plea to parents and educators alike is this: give children a chance to learn Braille. It is better to err on the side of Braille instruction than to deny any child the opportunity to read.

Success Through Reading: Heather's Story

by Marlene Culpepper

I am a teacher of visually impaired students in Columbus, Georgia, and I am writing to give hope to parents and inspiration to teachers and to tell the story of how a Braille reader can succeed and has achieved. This student is Heather Hammond. She is a dedicated and determined young lady who has shown everyone that Braille users can and should be judged against their sighted peers and that they can excel to the top of the academic ranks. She is a shining example of what any Braille user is capable of accomplishing with the right mix of parental and academic support and hard work on the part of the student.

In school Heather does well in all of her academic subjects and keeps up with the pace of her fifth grade regular education classroom. Heather has attended the gifted education program since first grade. She has achieved Principal's List during each six-week grading period and has earned many honors. She was the winner of our school's spelling bee, and was named Muscogee County's reader of the year for fifth and sixth grade. Heather also won first place in the physical science category in the school's science fair, and her project was named "Best of the Show." Heather's writing was evaluated as in the "extending stage," which is the highest rating on the Georgia Curriculum-Based Writing Assessment. Heather has also participated in the Braille Readers Are Leaders Contest for the past two years. This summer Heather attended the Springer Theater Camp on a scholarship and was a presenter at the NFB national convention in Atlanta. Here is Heather's award-winning essay on the significance of reading in her life:

What Reading Means to Me

by Heather Hammond

Reading is fun, exciting, and full of adventure. Reading takes me places I've never been, lets me do things I've never done, and lets me discover new and interesting people. I love to read and learn new things.

Reading is fun. I've lived in a tree house and forgotten my manners with the Berenstain Bears and changed into bats and moles with the Animorphs. Reading is exciting. I've been chased by a toothless vampire, stalked by a ghost named Della, and solved mysteries with Nancy Drew. Reading is full of adventure. I've fought the British with George Washington, sailed the Atlantic Ocean with Christopher Columbus, and been on pirate raids with Sir Francis Drake. Anything is possible when you read a good book. You never know what to expect.

I'm eleven years old, and I've been reading most of my life. It is one of my favorite things

to do. A good book lets me go places and do things all by myself, without my parents tagging along. Reading is very important to me. This is what reading is all about to me.

Reflections of a Lifelong Reader

by Kenneth Jernigan

Editor's note: Before his death in 1998 Kenneth Jernigan was the president emeritus of the National Federation of the Blind. He dedicated his life to improving the lives of blind people in this country and around the world. He was also a voracious reader. I have seen him pace a room, reading Braille aloud to his listeners. I watched him scan Braille material at an unbelievable speed and read silently far faster than he could speak. In short, Braille was for him as useful a tool as print is to sighted people. How did he develop such excellent Braille skills? He read as a small child, read as much and as often as he could, and he kept on reading as he grew up. In short, he became a good reader in the same way that print readers become proficient. The following are some of Dr. Jernigan's recollections of his early days as a reader:

When I was a boy growing up in Tennessee, Braille was hard to come by. At the Tennessee School for the Blind (where I spent nine months of each year) Braille was rationed. In the first grade we were allowed to read a book only during certain hours of the day, and we were not permitted to take books to our rooms at night or on weekends. Looking back, I suppose the school didn't have many books, and they probably thought (perhaps correctly) that those they did have would be used more as missiles than instruments of learning if they let us take them out.

When we advanced to the second grade, we were allowed (yes, allowed) to come down for thirty minutes each night to study hall. This was what the "big boys" did. In the first grade we had been ignominiously sent to bed at seven o'clock while our elders (the second and third graders and those beyond) were permitted to go to that mysterious place called study hall. The first graders (the "little boys") had no such status or privilege.

When we got to the third grade, we were still not permitted to take books to our rooms, but we were allowed to increase our study hall time. We could actually spend a whole hour at it each night, Monday through Friday. It was the pinnacle of status for the primary grades.

When we got to the intermediate department (the fourth, fifth, and sixth grades), we were really growing up, and our status and prestige increased accordingly. We were allowed (I use the word advisedly—"allowed," not "forced") to go for an hour each night Monday through Friday to study hall, and during that time we could read books and magazines to our hearts' content. True, the choice was not great—but such as there was, we could read. Of course we could not take books to our rooms during the week, but on Friday night each boy (I presume the girls had the same privilege) could take one Braille volume to his room for the weekend.

Before I go further, perhaps I had better explain that comment about the girls. The girls sat on one side of the room, and the boys sat on the other; and woe to the member of one sex who tried to speak or write notes to a member of the other. Girls, like Braille books, were difficult to get at—and all the more desirable for the imagining. But back to the main thread.

As I say, each boy in the intermediate department could check out one Braille volume on Friday night. Now, as every good Braille reader knows, Braille is bulkier than print; and at least four or five Braille volumes (sometimes more) are required to make a book. It is also a matter of common knowledge that people in general and boys in particular (yes, and maybe girls too) are constantly on the lookout to beat the system. What system? Any system.

So on Friday nights we boys formed what would today be called a consortium. One of us would check out volume one of a book;

the next, volume two; the next, volume three; et cetera. With our treasures hugged to our bosoms we would head to our rooms and begin reading. If you got volume three (the middle of the book), that's where you started. You would get to the beginning by and by. Now girls and Braille books were not the only items that were strictly regulated in the environment I am describing. The hours of the day and night fell into the same category. Study hall ended at 8:00, and you were expected to be in your room and in bed by 9:40, the time when the silence bell rang. You were also expected to be trying to go to sleep, not reading.

But as I have said, people like to beat the system; and to us boys, starved for reading during the week, the hours between Friday night and Monday morning were not to be wasted. (Incidentally, I should say here that there were usually no radios around and that we were strictly forbidden—on pain of expulsion and God knows what else—to leave the campus except for a brief period on

Saturday afternoon—after we got big enough, that is, and assuming we had no violations on our record which required erasure by penalty.) In other words the campus of the Tennessee School for the Blind was what one might call a closed ecology. We found our entertainment where we could.

Well, back to Friday night and the problem of the books. Rules are rules, but Braille can be read under the covers as well as anywhere else; and when the lights are out and the sounds of approaching footsteps are easy to detect, it is virtually impossible to prohibit reading and make the prohibition stick. The night watchman was regular in his rounds and methodical in his movements. He came through the halls every sixty minutes on the hour, and we could tell the time by his measured tread. (I suppose I need not add that we had no clocks or watches.)

After the watchman had left our vicinity, we would meet in the bathroom and discuss what we had been reading. We also used the

occasion to keep ourselves awake and exchange Braille volumes as we finished them. It made for an interesting way to read a book, but we got there—and instead of feeling deprived or abused, we felt elated. We were beating the system; we had books to read, something the little boys didn't have; and we were engaged in joint clandestine activity. Sometimes as the night advanced, one of us would go to sleep and fail to keep the hourly rendezvous, but these were minor aberrations—and the weekend was only beginning.

After breakfast on Saturday morning some of us (not all) would continue reading—usually aloud in a group. We kept at it as long as we could, nodding off when we couldn't take it any more. Then we went at it again. Let me be clear. I am talking about a general pattern, not a rigid routine. It did not happen every weekend, and even when it did, the pace was not uniform or the schedule precise. We took time for such pleasantries as running, playing, and occa-

sional rock fights. We also engaged in certain organized games, and as we grew older, we occasionally slipped off campus at night and prowled the town. Nevertheless, the reading pattern was a dominant theme.

Time, of course, is inexorable; and the day inevitably came when we outgrew the intermediate department and advanced to high school, seventh through twelfth grades. Again it meant a change in status, a change in everything, of course, but especially reading. Not only could we come to study hall for an hour each night Monday through Friday and take a Braille volume to our room during weekends, but we could also check out Braille books whenever we liked, and (within reason) we could take as many as we wanted.

Let me now go back once more to the early childhood years. Before I was six, I had an isolated existence. My mother and father, my older brother, and I lived on a farm about fifty miles out of Nashville. We had no radio, no telephone, and no substantial contact

with anybody except our immediate neighbors. My father had very little formal education, and my mother had left school just prior to graduating from the eighth grade. Books were not an important part of our family routine. Most of the time we did not have a newspaper. There were two reasons: our orientation was not toward reading, and money was scarce. It was the early thirties. Hogs (when we had any) brought two cents a pound; and anything else we had to sell was priced proportionately.

I did a lot of thinking in those preschool days, and every time I could, I got somebody to read to me. Read what? Anything—anything I could get. I would nag and pester anybody I could find to read me anything that was available—the Bible, an agriculture yearbook, a part of a newspaper, or the Sears Roebuck catalog. It didn't matter. Reading was magic. It opened up new worlds.

I remember the joy—a joy which almost amounted to reverence and awe—which I

felt during those times I was allowed to visit an aunt who had books in her home. It was from her daughter (my cousin) that I first heard the fairy stories from *The Book of Knowledge*—a treasure which many of today's children have unfortunately missed. My cousin loved to read and was long suffering and kind, but I know that I tried her patience with my insatiable appetite. It was not possible for me to get enough, and I always dreaded going home, finding every excuse I could to stay as long as my parents would let me. I loved my aunt; I was fascinated by the radio she had; and I delighted in her superb cooking; but the key attraction was the reading. My aunt is long since dead, and of course I never told her. For that matter, maybe I never really sorted it out in my own mind, but there it was, no doubt about it.

As I have already said, I started school at six, and when I say six, I mean six. As you might imagine, I wanted to go as soon as I could, and I made no secret about it. I was six in November of 1932. However, school start-

ed in September, and six meant six. I was not allowed to begin until the next quarter, January of 1933. You can understand that, after I had been in school for a few weeks, I contemplated with mixed feelings the summer vacation which would be coming. I loved my family, but I had been away from home and found stimulation and new experiences. I did not look forward to three months of renewed confinement in the four-room farm house with nothing to do.

Then I learned that I was going to be sent a Braille magazine during the summer months. Each month's issue was sixty Braille pages. I would get one in June, one in July, and one in August. What joy! I was six, but I had learned what boredom meant—and I had also learned to plan. So I rationed the Braille and read two pages each day. This gave me something new for tomorrow. Of course I went back and read and re-read it again, but the two new pages were always there for tomorrow.

As the school years came and went, I got other magazines, learned about the Library of Congress Braille and Talking Book collection, and got a Talking Book machine. By the time I was in the seventh grade, I was receiving a number of Braille magazines and ordering books from three separate regional libraries during the summer. Often I would read twenty hours a day—not every day, of course, but often. I read *Gone with the Wind*, *War and Peace*, Zane Grey, Rafael Sabatini, James Oliver Curwood, and hundreds of others. I read whatever the libraries sent me, every word of it; and I often took notes. By then it was clear to me that books would be my release from the prison of the farm and inactivity. It was also clear to me that college was part of that program and that somehow I was going to get there. But it was not just escape from confinement or hope for a broader horizon or something to be gained. It was also a deep, ingrained love of reading.

The background I have described conditioned me. I did not feel about reading the

way I see most people viewing it today. Many of today's children seem to have the attitude that they are forced, not permitted, to go to school, that they are required, not given the privilege and honor, to study. They are inundated with reading matter. It is not scarce but a veritable clutter, not something to strive for but to take for granted. I don't want children or the general public to be deprived of reading matter, but I sometimes think that a scald is as bad as a freeze. Is it worse to be deprived of books until you feel starved for them or to be so overwhelmed with them that you become blasé about it? I don't know, and I don't know that it will do me any good to speculate. All I know is that I not only delight in reading but believe it to be a much neglected joy and a principal passport to success, perspective, civilization, and possibly the survival of the species. I am of that group which deplores the illiteracy which characterizes much of our society and distinguishes many of its would-be leaders and role models. I am extremely glad I have had the oppor-

tunity and incentive to read as broadly as I have, and I believe my life is so much better for the experience that it borders on the difference between living and existence.

That the Sighted May See

by Susan M. Falcone
Loch Raven High School
Baltimore, Maryland

If ever there was a group of students who made a 180-degree change, it was my first service learning class of thirty recalcitrants. They entered the spring semester of their senior year growling at having to take a course to earn seventy-five hours of service as a graduation requirement. Their deep-seated anger was aimed at "conscripted service," and they spat that anger out at anyone and everyone associated with the concept of service learning. They were a challenge to the best of teachers, and there were days after they left class when I literally cried from exhaustion. Their anger became mine. And then a miracle happened. In walked Mary Kuforiji, a

blind member of the National Federation of the Blind of Maryland. Her job was to teach them uncontracted Braille so they could complete a Braille service project for the National Federation of the Blind.

Good miracles take time, and good miracles leave the deepest impressions. I believe I observed a good miracle that spring as thirty recalcitrants evolved, developed pride, and grew beyond their own expectations and beliefs.

The first visit by Mary was tenuous to say the least. The class felt very uncomfortable with her in the room. Mary never flinched even though I know she overheard many of their rude remarks. Their copious questions were answered honestly and openly. She did not become defensive, which she could easily have been, given the nature of the questions and how they were phrased. The next day, they told me they never wanted Mrs. Kuforiji to come back and whined, "Why do we have to do this project?" "We want to do some-

thing else." They growled a good deal that day. I quietly explained that Mary would come once a week to help us with this project. When their whining added the new twist of, " Why can't you just teach us then?" I threw up my hands in exasperation. The growling continued to be part of our daily routine.

I don't remember when the growling stopped. It was gradual and had to do with two insights: a newly learned skill (Brailling) and a new understanding about being blind. I think the first real change came when they asked Mary to read Braille.

She took out a children's book and read quickly with expression. They were very surprised, but some suggested, "Eh, she's just memorized that book." It was suggested that she be given something to read that they had Brailled. So, they gave her a practice sheet one of the students had done as he attempted to learn the Braille alphabet. Of course she read it easily, stopping to acknowledge what

the student had done well, picking up every mistake made, and laughing when she came to his nickname at the bottom.

In turn, as she read, the class, almost as a single body, stood and moved toward Mary to watch her read. Their amazed expressions signaled the opening of closed minds. Some sat down at Mary's table; others went back to Brailling. Now the discussion was about how in the world she read Braille that easily as each of them tried to repeat what they had seen her do. Their Brailling developed a new attitude; one of serious purpose, as did their conversations about being blind.

Quiet competition developed and students gave each other support and encouragement—something I had never seen happen in this class before. They knew who the expert Braillers were and used them to check their work. The class continued to work on three projects simultaneously so that the Brailling would not become too tedious for their short attention spans. I began to look

forward to that class. In itself that was a miracle.

Along the way as Mary and I instructed the students in how to use the card slates, Mary had emphasized—and I had reemphasized—the rule: "Never Braille more than one UNO card at a time." We had one holdout. He was a true doubting Thomas eager to finish his assignment of cards. His purpose was to finish what he had "assigned" to himself so that he could sit and do nothing. One day, as the class was busy Brailling and Mary was checking cards that had been completed, she spoke above their voices to say, "Someone has been Brailling these cards two or three at a time." Thirty heads snapped to attention. They looked at me. I shrugged in my own astonished way and said, "She told us she could tell the difference." Our doubting Thomas' face was a mix of disbelief and guilt. The class razzed him as he sat in great discomfort.

Out of defense he asked how she could tell. She explained that they were more difficult to read and that it hurt her fingers to read them. She also explained again that her primary concern—which had prompted the rule in the first place—was the cost of replacing the card slate if it was damaged. Mary and the class had a good laugh together, the rule was reemphasized in a positive way, and she moved on. At that point our doubting Thomas became a believer. He looked down, removed two cards from his card slate, and reinserted only one card. And so we Brailled about twenty-eight decks of UNO cards for the National Federation of the Blind.

The last day of class was also Mary's last visit. This time students sat easily with Mary around a table, talking and handing her cards to check. The day's agenda was to finish correcting cards, award the students a certificate, and reflect in some manner about the experience. In preparation for the ending, I had Brailled a sheet of school letterhead with the school name, the date, and a brief thank you

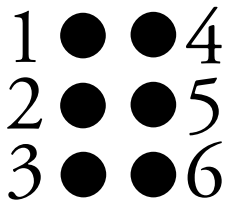
message. As the students worked, we passed the thank you letter around for each student to Braille his or her name.

Toward the end of the period, we presented Mary with the gift and thank you letter. As she began to read, "Loch Raven High School," the students moved toward her table, and a circle of adolescent bodies surrounded Mary. When she read my name, the students looked at me and smiled. But it wasn't until she began to read their names that the good miracle revealed itself. "Carl Albert," quiet in the room. "Rich Balker," pride. "Sheena Kamerron," a pat on Mary's back and a high five to a friend. Each name she read was another miracle. Mary, blind volunteer, had helped the sighted see. The class, made up mostly of tough adolescent guys and even tougher girls, left amid hugs of goodbye and the general consensus, "I hate to admit it, but this was fun."

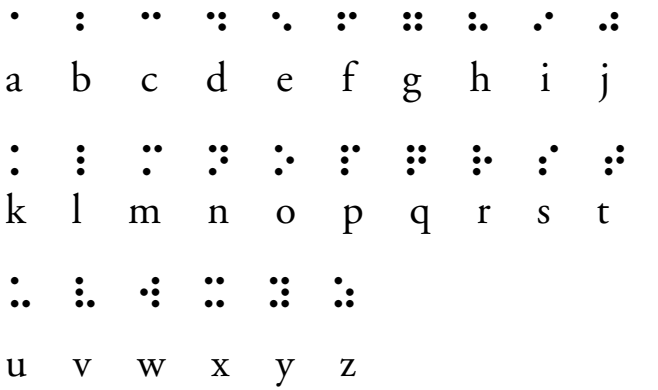
Do I dare believe that the word "fun" finally became for these students another word for "learning?"

Braille: What Is It?

Braille is a system of reading and writing by touch used by the blind. The basic unit in Braille is called the Braille cell. Each cell consists of six dots arranged in two columns of three dots each. Braille dots are always the same size; there is no variation as there is in print. The dots are commonly referred to by number according to their position in the cell:

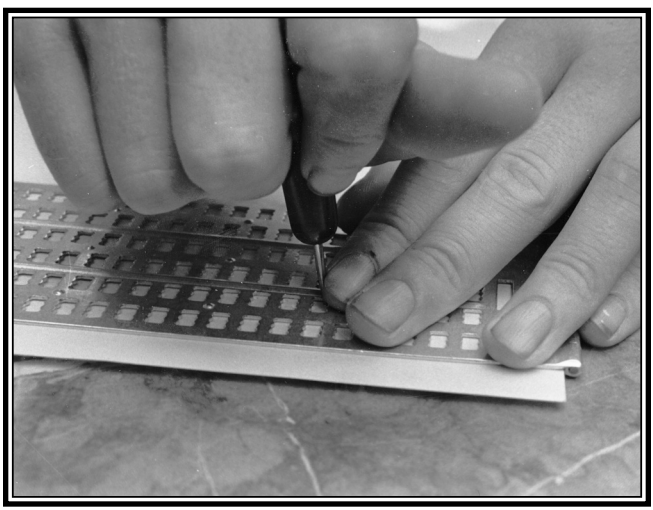


Each Braille letter or other symbol is formed by using one or more of the six dots. Here is the alphabet in Braille:



Sometimes cells are used in combination. For example, capitalization is accomplished by placing a dot six in the cell just before the letter that is capitalized. Numbers are combinations, too. The first ten letters of the alphabet become numbers when they are preceded by a Braille symbol called the number sign (dots 3 - 4- 5- 6). So, when preceded by the number sign, a is 1, b is 2, all the way up to j, which is 0.

Braille is written on heavy paper, and the raised dots prevent the pages from lying smoothly together as they would in a print book. Therefore Braille books are quite



The slate and stylus are the Braille reader's equivalent of a pen or pencil

bulky. Some contractions are used in standard American Braille in order to reduce its bulk. For example, the word together is written tgr in contracted form. Most Braille books are printed in contracted Braille although some books for very young children are published in uncontracted or alphabet Braille.

There are three methods of writing Braille: slate and stylus, Braillewriter, and a computer Braille embosser. 1) The slate and stylus is comparable to a pen or pencil. The stylus is used to push dots down through the paper, while the plastic or metal hinged-slate serves as a guide for placing the dots precisely and evenly on the page. The writer begins at the right side of the paper and ends the line on the left, since the dots are being produced on the underside of the paper. Of course the Braille reader reads from left to right when he or she turns the paper over to read the raised dots. Although this may seem a bit confusing, it need not be at all troublesome, since both reading and writing

progress through words and sentences from beginning to end in the same manner. The speed of writing Braille with the slate and stylus is about the same as the speed of writing print with pen or pencil. 2) A Braillewriter is a machine comparable to a typewriter. It has a keyboard of six keys (one for each dot in the Braille cell) and a space bar. Pushing various combinations of the keys on the Braillewriter produces different letters of the alphabet and other Braille symbols. 3) Finally, Braille embossers and special software allow anyone, even nonBraille readers, to print computer documents in Braille quickly and easily.

Technology has made paper Braille affordable and easy to produce. It has also already produced the first paperless Braille—a small computer display screen with readable pop-up or "refreshable" Braille pins. There is every reason to believe that technology and research will continue to develop new and better methods for learning and producing Braille. The future for Braille has never looked brighter.

Your Child's Right to Read

by Carol Castellano

Editor's note: Carol Castellano is a nationally known parent leader, advocate, and author of many publications about the education of blind children; including the popular, The Bridge to Braille. *She is also mother of Serena Cucco, a successful young blind adult. Here Castellano describes the important legal rights of a blind or partially sighted child to Braille instruction:*

A father reports that his daughter had to be placed in a resource room instead of the regular classroom during the school year. The child has no learning problems or delays; she simply cannot keep up with the class while she is reading on a closed circuit television.

"Braille is a tremendous undertaking, very complicated and difficult to learn," a blindness professional tells one mom. "Let your son use his vision for as long as he has it."

"My child isn't blind. She doesn't need Braille. She can use a closed circuit television (CCTV) to read." But when the partially sighted youngster reaches second grade, her mother realizes the child cannot read at all. By the time Braille instruction is finally initiated, the student lags far behind her classmates. "I had been so happy that my daughter wasn't blind. I now see that Braille is not a curse of blindness, but a tool of literacy and freedom," the mom says.

What do these scenarios have in common? The negative attitude that Braille is the medium of last resort and the misconception that Braille is not for youngsters who have some eyesight. The reality is that Braille is a valuable tool, the key for both totally blind and partially sighted people to full literacy and equality in the classroom. Not every par-

tially sighted person needs Braille, but far too many students with partial vision for whom Braille would be a sensible reading option are denied instruction in this highly beneficial medium.

There is good news. An important change was made in 1997 to the Individuals with Disabilities Education Act (IDEA), the federal law that guarantees a "free and appropriate education" to children with disabilities. The change says:

> "The IEP Team shall…in the case of a child who is blind or visually impaired, provide for instruction in Braille and the use of Braille unless the IEP Team determines, after an evaluation of the child's reading and writing skills, needs, and appropriate reading and writing media (including an evaluation of the child's future needs for instruction in Braille or the use of Braille), that instruction in Braille or the use of Braille is not appropriate for the child." (Section

614(d)(3)(B)(iii))

What does this actually mean? It means, first of all, that the school must provide Braille. Second, it means that four specific areas must be examined before Braille can be ruled out. The IEP team, which includes the parent(s), must evaluate:

1. the child's present reading and writing skills;
2. his or her reading and writing needs;
3. the appropriate reading and writing media (which could end up being Braille, print, or both Braille and print); and
4. any need the child might have in the future for Braille.

Only if the results of these evaluations show that the child does not presently need Braille and will not need Braille in the future, can Braille be ruled out.

Decisions about teaching Braille have often been made on a single basis—whether the child had enough vision to see any print. Now it is no longer legal to say that, just because a child can see a little, he or she cannot have Braille. The teaching of Braille was often delayed until the child began falling behind in school. Families and teachers should not have to watch their children or students fail before an appropriate literacy tool is provided. Decisions about teaching Braille were often full of emotion—"You're making the child blind." Now decisions about Braille will be based on an objective examination of the child's present and future need for the medium. Braille used to be the medium of last resort. Braille will now be the medium of first choice. This change in the law has the potential to make an enormously positive difference in the lives of blind children.

Many of us have heard Braille discussed as very difficult and burdensome to learn. We have heard that partially sighted students

don't want to learn Braille or that they will read it with their eyes anyway. But it's all in the presentation. If Braille is presented in a positive light as the medium of choice for full literacy, if the methods of teaching it are engaging and appropriate, if children are taught to pair their remaining vision with their sense of touch, then Braille learning will be undertaken with the same excitement and interest that a child might have for any other subject or skill. And it will be mastered with a sense of pleasure and accomplishment.

The fact is that Braille is a wonderful literacy tool, whether it is used exclusively or along with print. It enables the child to read fast and without fatigue, to keep up with the class, to take notes and read them back. Braille opens the world of the analysis of literature and of higher math and the sciences. Braille levels the playing field, enables our children to compete on equal terms with their peers, and gives them access to all aspects of a good education. This law is a great victory for blind and visually impaired

children, for it ensures that they will now be given the tools they need for full literacy, for a complete education, and for a bright tomorrow.

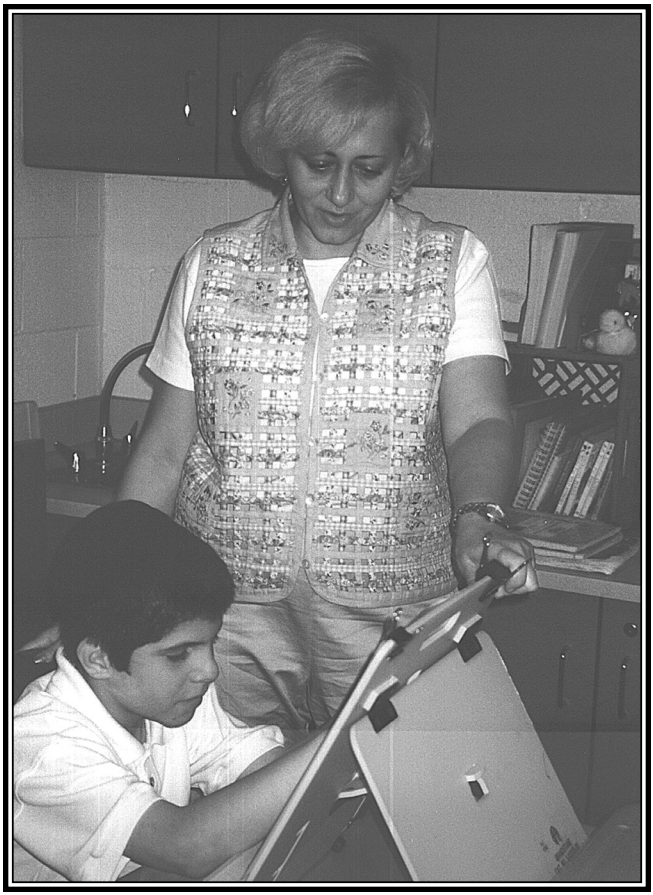
Study Confirms That Early Braille Education Is Vital

An exhaustive study has cast aside some erroneous stereotypes while underscoring the importance of Braille education at an early age. The study has revealed that literacy rates of blind high school students who began their Braille education at an early age are consistent with those of their sighted peers. The study further disclosed that legally blind children who received infrequent or no Braille training, or who began their Braille education later in life, exhibit noticeably lower literacy rates

The study was conducted by Ruby Ryles, Ph.D., founding coordinator of the master's program in orientation and mobility at Louisiana Tech University/Louisiana Center for the Blind. Ryles performed the study for

her University of Washington doctoral dissertation in special education, titled "Relationship of Reading Medium to Literacy Skills of High School Students Who Are Visually Impaired." Results from that and a preliminary study suggest that partially sighted children may be at greater risk of literacy deficiencies than children who are totally blind. The study was intended to establish correlations between present literacy rates and the early reading education of high school students from forty-five cities, towns, and rural communities in eleven eastern and southern states. Of sixty students in the study, forty-five were legally blind from birth, had no other disabilities, spoke English as a first language, were of average intelligence, and attended public rather than residential schools

The study also included a comparative group of fifteen sighted students attending the same schools as the legally blind subjects. The forty-five legally blind students were divided into three groups of fifteen students



This Braille teacher has high expectations for her blind student.

each, corresponding with the initiation and consistency of their Braille instruction: Early Braille—students who received Braille instruction four to five days per week while in the first, second, and third grades; infrequent Braille—students who received Braille instruction fewer than four days per week during the first three grades; nonBraille—legally blind students who received no instruction in reading Braille, instead using print material and optical aids.

Ryles administered comprehension, vocabulary, and other subtests of the Stanford Achievement Test and the Woodcock Johnson R (revised) assessment tests. In comprehension tests there was no significant difference between the mean scores of the sighted students and the group of blind students who received early frequent instruction in Braille. Nor was there a significant difference between the mean scores of the infrequent Braille group and the nonBraille group on the two comprehension tests. However, the students who received

instruction in Braille fewer than four days a week during the first three grades of school (infrequent Braille group) and the nonBraille group posted mean scores on both tests significantly lower than those of the sighted and early Braille groups.

In vocabulary early Braille readers outperformed sighted students by a 5 percent margin on the Stanford test and nearly matched their sighted classmates on the Woodcock Johnson R test. The infrequent Braille learners, producing a mean score of 45 percent, registered significantly below the early Braille and sighted groups on the Stanford test. Legally blind students who received no Braille instruction posted a mean score 6 percentage points lower than the infrequent Braille group on the same test. The infrequent and nonBraille groups also scored significantly lower than the early Braille and sighted groups on the Woodcock Johnson R vocabulary test.

Spelling, punctuation, and capitalization scores shattered stereotypes. In the capitalization and punctuation portion of the Woodcock Johnson R test, early Braille readers produced a mean score that was 7 percentage points higher than their sighted peers, 25 percentage points higher than the infrequent Braille group, and 42 percentage points higher than their legally blind peers in the nonBraille group. In the spelling portion of the Woodcock Johnson R test, early Braille learners averaged 1 percentage point higher than fully sighted readers, 32 percentage points higher than infrequent Braille-learning students, and 38 percentage points higher than the nonBraille group

Before beginning work on the project, Ryles conducted a preliminary study in the state of Washington evaluating the correlation between adult literacy skills and employment. There she studied seventy-four adults who were born legally blind and were patrons of the Library for the Blind. Ryles discovered that 44 percent of the study participants who

had learned to read in Braille were unemployed, while those who had learned to read using print had a 77 percent unemployment rate. Those results prompted her to conduct an in-depth study exploring the childhood reading education of legally blind high school kids.

The two studies led Ryles to an inescapable conclusion: "Low-vision kids need to be taught Braille," she asserts. "Early Braille education is crucial to literacy, and literacy is crucial to employment."

The article above first appeared in Star Student*, a HumanWare publication, and was later reprinted in* Future Reflections*, the National Federation of the Blind Magazine for Parents and Teachers of Blind Children.*

Literacy Begins At Home

by Christopher J. Craig, Ed.D.

Editor's note: Blind himself, Professor Christopher Craig conducted important doctorial research about emerging literacy in blind and visually impaired children. Based on his studies, here are his suggestions for parents of young blind children:

As the father of three I have had the opportunity and pleasure to see two of my children emerge into literacy. The term "emergent literacy" refers to a process which begins at birth and continues until children begin to read and write conventionally. That is, this process ends when children are able to gain meaning from words either in print or Braille and use these written words to communicate with moms, dads, siblings, friends, and teachers.

In recent years professionals have become very interested in this process for children who are blind or have low vision. This article briefly suggests some ways in which families can improve the home literacy experiences for children with visual impairments.

Suggestions

1. The family and home is a key component in the literacy development of young children with visual impairments who will use print and those who will use Braille. While it may be next to impossible to provide your child access to the same amount of material in Braille that is readily available in print, try to target a few places in the home and times during the daily routine to increase your child's exposure to either print or Braille. For example, designate an area in your house as a reading center or corner. Be sure it has a variety of material available in either print or Braille which is physically accessible. That is, the child can easily pull books off the shelf or obtain them with little

effort. If a sibling generally begins the day by mindlessly eating a bowl of Captain Crunch with his or her nose three inches away from the box, make this a regular literacy event for your child with the visual impairment. Label the box with Braille or encourage the child with low vision to examine the box with an optical device. Describe in detail what the box looks like, or have the sibling read aloud the printed material.

2. Encourage pretend reading and writing. Whenever you perform mundane tasks, such as paying the bills or reading something for school or work, involve your child. Have him or her pretend to do these tasks as well. If your child will be a Braille reader, encourage scribbling using the Braillewriter or slate and stylus.

3. As part of the On the Way to Literacy Project, APH has adapted several classic children's books with tactual representations of visual concepts. These materials, as well as other children's books which have been

adapted tactually, can be used to form the basis of a shared reading experience for you and your child. Encourage your child to point to pictures and examine them visually or tactually. When possible, maintain a high standard for your child's comprehension and involvement in stories you read aloud.

4. Explore ways in which your child's early intervention program or school can serve as a resource to you in your efforts to promote home literacy experiences. The Individuals with Disabilities Education Act (IDEA) specifies the responsibility of school districts in providing assistive technology to students in special programs in order to insure a free appropriate public education. The IEP team can make determinations concerning the need for providing equipment and material for use in the home.

5. Finally, if you believe your child will be a Braille reader, by all means learn to read Braille. Alphabet or uncontracted Braille can be learned quickly and can be a fun activity

for you and your family. Involving the family in the learning of Braille or in the use of optical devices creates opportunities for your child to learn that reading and writing serves a functional or meaningful purpose in your home and that your family values literacy in either print or Braille.

My Shameful Secret

by Barbara Pierce

Editor's note: Barbara Pierce is the president of the National Federation of the Blind of Ohio and editor of the Braille Monitor *magazine.*

Can you remember the intoxication of learning to read? I can. When I began first grade, the Scott-Foresman primers about the adventures of Dick, Jane, and Sally were in use, and I still remember the picture of Dick standing on his shoulders in a pile of leaves, feet kicking in the air, while one of his sisters intoned the page's text, Look at Dick! Funny, funny Dick!

Had I but known it, those early weeks of first grade were the high point of my reading career. We gathered around the teacher in reading groups to sound out the words and falter our way through each page. I was good at it. I understood the principles of picking

out the sound of each letter and shoving them together rapidly enough to guess at the meaning. The result was that I was in the first reading group.

My success didn't last long. By second semester each page bore many more lines of print, and my mother was forced to work with me at home after school or before bed to help me keep up. For I was what they called a low-vision child. I could see the print with only one eye, and I am certain that I was legally blind, though no one ever used that word in my hearing. Mother placed a little lamp close to the page so that I could see as well as possible, but the letters were still blurred, and I could never get the hang of reading an entire word at once.

By second grade I was in the second reading group, and by third grade I had slipped to the third group, despite the lamp now clipped to the side of my desk. I had to face the truth: I was dumb. I lay awake at night worrying about the increasing number of

The simple pleasure of sitting quietly and reading a good book was long delayed for Barbara Pierce. She was denied Braille as a child so has had to teach herself to read as an adult.

spelling workbook exercises left undone because my reading and writing were too slow to complete them in class. I still maintained an unbroken string of perfect spelling tests because my parents drilled me on the spelling lists every week. The tests were nothing, but the workbook! I fantasized about what it would be like to go to bed at night and not stare open-eyed into the black prospect of mortification when the truth about me and my incomplete work eventually came to my parents' notice.

It happened at the close of the third marking period, and it came, as such things do, like a bolt from the blue. I had actually brought home what I thought was a good report card—all A's and B's except for art, penmanship, and gym, in which I always got C's.

Everybody knew that I was terrible at those things because "Barbara's blind as a bat." But the dreaded unmasking of my shameful secret in the spelling workbook

seemed to me to have remained hidden beneath an A for yet one more grading period. I handed my mother my report card and ran out to play. But when my brother and I were called in for dinner (Dad was out of town at the time), I knew that something was wrong; Mother had been crying, and she did not sit down to dinner with us. She said that she had a headache. It soon became apparent that I was the headache. My report card had betrayed me after all. In all that hard-to-read small print at the bottom the teacher had given me a U (unsatisfactory) in the puts-forth-best-effort category, where I was used to getting E's (Excellent) or at least S's (satisfactory). Mother went to school the next day and learned the horrible truth about me. I was astonished to learn afterward that the relief of having my shameful secret out in the open actually reduced my burden. True, I had to make up all the work I had been avoiding because the reading had become too difficult. Play time was much reduced, and I had to learn all over again how to go to sleep

without worrying, but things were never again as bad.

In the following years we tried magnifying glasses for my good right eye, and the summer after fourth grade I had to be tutored in an effort to learn to read with high magnification. In September of fifth grade my new teacher called on me to read a paragraph in the geography book during the class lesson. I read like a second grader, and I was mortified. The teacher never called on me again. By sixth grade I was hardly using the glasses at all. I was quick to learn as long as I didn't have to struggle to make sense of the print, and it was easier on everyone for the teacher to assign a rapid reader to work with me on in-class reading projects.

Finally, at the close of seventh grade, my parents faced the painful truth: if I were to have any hope of literacy, I would have to learn Braille. Print was no longer an option. I mastered the Braille code in a summer of weekly lessons taught by a woman who used

Braille herself, though she admitted that she was not a good Braille reader. She assured me that her husband could read Braille rapidly, but I never heard him or anyone else use the code efficiently. People told me it was important to use my Braille and that practice would increase my speed. But by that point in my education I had already worked out alternative ways of getting my reading and writing done, and I was no longer eager to crawl down a page of text as we had done in early elementary school. I practiced writing Braille with my slate and stylus because I knew that in college I would need a good way of taking notes in lectures, but I never made time to learn to read Braille properly.

Now that I am a member of the National Federation of the Blind, I know hundreds of people who read Braille easily and well. Some of them could not see print when they were beginning school, so Braille was the only option for them. But many more could make out print when they were learning to read, even though as adults they cannot see it.

They were lucky enough to be taught Braille along with print, and they simply and naturally learned to decide which method would be most useful for each reading task. As a result they now read Braille at several hundred words a minute.

I have never regretted learning to read print. Everyone should know the shapes of print letters, but I will always bitterly regret that I was not taught Braille as a small child. Today I am struggling to gain the speed and accuracy in reading Braille that I should have had by the time I was ten. I have now been working at it for a number of years, and my reading speed has more than tripled, but I must face the fact that I will never read as fluently as a bright ten-year-old. Setting aside the fact that the adult brain does not master new skills as rapidly as does a child's, I cannot bring myself to practice reading aloud to my long-suffering family. The time for taking advantage of such an opportunity is childhood, and I cannot make myself inflict my stumbling reading on my husband.

I urge everyone grappling with the question of whether or not to teach Braille to a child to insist that it be taught as early as possible. No matter how clearly a youngster can see print at the moment, if the vision is fragile or problematic in any way, Braille will often become invaluable in the future, even if print too continues to be useful. I think it is always valuable to keep a blind child's options open and everyone's expectations high. All young things need space to stretch and grow within their God-given abilities. Please insist that your child be given a chance.

Print or Braille? I Use Both!

by Charles Brown

Editor's note: Yes, there really is a Charlie Brown. He has practiced law for over thirty years and currently serves as the assistant general counsel and ethics officer for the National Science Foundation. Here's what he has to say about print and Braille:

As a leader in the National Federation of the Blind, I am an enthusiastic participant in our Braille literacy campaign. I know how important Braille is to me, even though I have a good deal of usable vision. Low vision blind kids are primary victims in today's crisis in Braille literacy.

Yes, Braille is important to me, but I also use print. I use it a lot.

Even totally blind folks need to know print. Print is all around us—raised letters and numbers are on everything from kids' blocks to restroom doors. Our language assumes a knowledge of the print alphabet. Like sighted folks, blind folks need to know what a T intersection is, or an S curve, or a U turn. Blind folks need to know why O is used synonymously with the number 0 (in Braille zero corresponds with the letter j). How does Zorro make the "mark of the Z" on the chest of his victims?

My totally blind friends routinely sign their names, make out checks, and type letters to their friends. I strongly believe that the schools must teach blind kids to read, write, and touch-type (keyboard) print. Print is part of living in the world even if you never see a word of it.

Many blind people, like me, can see print. Does knowing Braille mean I should ignore what I can see? Nonsense! My office is full of print, and I use it everyday.

I've always been able to read ordinary-sized print with decent lighting, provided I held it right up to my face. If I were in school today, there would be a good chance that I would not be taught Braille. My print skills would probably be judged as good enough. But, thankfully, when I was starting school in the fifties, my parents and the others responsible for my education realized that I could not read print fast enough or long enough (comfortably) to compete as a true equal with sighted folks my age. So I also learned Braille; and I competed pretty well in school. I did well enough to get through Harvard College and the Northwestern University Law School—using mostly Braille, tape recordings, readers, and my typing skills.

Just after I graduated from law school, the closed circuit television (CCTV) was invented. I got one of the first models and have used CCTVs in my career as a lawyer ever since. With a CCTV I can read print faster, longer, and more comfortably than I could before CCTVs came along. I use the CCTV

in my office to read all the papers and files that come across my desk, to read cases and articles in books and periodicals sitting in my bookcases, or from items checked out from the law library. I also use the CCTV to fill in forms and prepare hand-written notes.

As many other working Americans do these days, I constantly use a computer. Some blind folks use speech-output devices to gain computer access, but I use screen-enlargement software. I use my computer to write legal opinions and memoranda. I use it to handle my electronic mail and for much more. When it became time for me to become computer-literate, I had a real leg-up on most of my sighted colleagues. I was already an excellent touch-typist.

A number of screen-enlargement software packages are on the market, and they are mostly pretty inexpensive. Many members of the NFB use screen enlargement programs. One of the great fringe benefits of being a Federationist is the ability to check out each

other's packages and exchange demos. We talk about color contrasts, letter shapes, cursors, Windows compatibility, etc. I need to know what's out there in order to know what will work for me. It's almost as if no two partials see alike. What works fine for me may be frustrating or even useless to someone else.

When I leave my office, Braille looms larger in my briefcase and in my life. I use a Braille slate to take notes at meetings. It is one of the fastest, least disruptive, and most efficient note-taking devices I know—at least for me. I like to get periodicals in Braille because, unlike using print, I can read Braille rapidly and comfortably anywhere—on the bus, for instance. I still use recorded materials too. For example, I get the American Bar Association Journal on tape (produced by the National Association of Blind Lawyers, a Division of the NFB).

Like most other lawyers I must often make prepared oral presentations. For one thing, each year I teach about thirty seminars

on the government ethics rules to employees of my agency. I design the lesson plans, write the case studies and other hand-outs, and conduct the classes. The participants get the materials in print, but I Braille all of my materials, outlines, quotations, slides, etc. This way I can have these items literally at my fingertips. I cannot credibly do the essential teaching part of my current job in print. I'd hate to think of trying to teach hiding behind a CCTV or holding papers up in front of my face. Eye contact and rapport count so much in effective and convincing teaching. That's why I use Braille.

I use Braille outlines for my speeches (including any quotations I'll be using). Braille is also my primary medium for meeting agendas when I am chairing. I cannot afford to let a struggle with print get in the way and distract from my messages. Sometimes I need to make a very formal address, and I write it out completely in Braille. This way I can concentrate on my delivery, without worrying about phrasing. I

can focus on voice modulation, gestures, and eye movements. Remember, lawyers are supposed to be convincing.

As a lawyer, church leader, and civic activist, I use Braille when it is the best medium, and I use print when it works best. It all seems so obvious and second-nature to me that I am shocked when some so-called experts talk so loosely about the "choice" between print and Braille. Did learning Braille impair my ability to learn and use print? Not at all! Some people even say that learning print and Braille is comparable to learning two languages. No way! It's all English. I can fully attest—as I recall my struggles with four years of high school French—that learning both Braille and print is nothing at all like learning two languages.

Parents often come to me looking for advice about the education of their children. The advice I give is basically pretty simple. Their children need, I tell them, to find alternative techniques for reading, mobility, and

the like. These techniques need to be, on the whole, as effective as those used by sighted peers—assuming they want their kids to be prepared to compete on terms of equality. Braille and print are just two parts of the total mix. Print or Braille? It's a silly question not worth asking, as far as I am concerned. Most blind kids need to learn both.

Can Braille Change the Future?

by Denise Robinson

As an itinerant teacher of the visually impaired, I often teach my students for many years. More than four years ago I met a lovely little girl in her second year of school who had very little usable sight for reading. Before she came to me, she had the use of a closed circuit television (CCTV) and other magnifying equipment but was not doing well in school because of her lack of sight and inefficient skills for being visually impaired. The first six months we worked together, she constantly talked about quitting school as soon as she turned sixteen. She hated school so much because she couldn't do anything.

I started teaching her Braille as intensely as I thought she could handle. I knew that when she had something she could actually

use in school, she would begin to enjoy academics like her classmates. After a year and a half and the acquisition of a great deal of Braille knowledge, she was able to read books like the rest of her peers. She finally began to enjoy school. She was still behind academically and struggled with school work, but insisted every time the class had a particular book that she also have it in Braille so she could "read it like them." She now delights in showing sighted peers how to read Braille in her books and write Braille words on her Braillewriter. This has also become quite a self-esteem builder.

She is also a very accomplished typist for her age. Typing is a skill she needs right along with her Braille so she can produce work for her regular education teacher and turn it in along with her peers. When her regular education teacher asks her to write something, she does not hesitate to go to her computer and generate her work, knowing she can do the work like her sighted counterparts.

This student has progressed from constantly talking about quitting school to chatting about going on to college, just because she knows she can get the material she needs and do the work like others. I often wonder how much more successful she and others like her—who did not begin Braille at a preschool age when their sighted peers learned letters at age three and four—might have been. Would she have gone through the constant feeling of hating school and struggling for two to three years because of the lack of essential skills needed by a visually impaired student? We cannot look back, though, but must look forward to help other pupils.

As teachers we must constantly look into our students' future to make sure they will have the skills they need to be successful people. Our ultimate goal is the success of all children through appropriate educational practices, equipment, and technology.

The Blessing of Braille

by Adam Rushforth

Editor's note: Adam Rushforth was a student at the National Federation of the Blind's Louisiana Center for the Blind, where he learned Braille. In his story he describes the exhilaration he felt when he was able to read a book on his own and give a talk in his church using Braille notes he wrote himself. Here is what he has to say:

My whole life I have been a blind person who thought I could succeed in life living like a sighted person. I learned Braille when I was in the fourth and fifth grade but never used it to do any of my schoolwork. I thought it was exciting to learn how to read Braille but was never willing to put in the time actually to become proficient in Braille. I remember my first convention in Philadelphia with the National Federation of the Blind when I heard a talk on the televi-

sion in the hotel from Kenneth Jernigan. In that talk he mentioned a blind woman who had a three-year-old child come up and ask her to read her a story. What would I do if a future child of mine asked me to read to him or her? The image of pressing "play" on a recorder, or pressing the speak button on my computer did not appeal to me. I realized that I was on the verge of becoming illiterate. I had never considered that, when I became totally blind, I would be illiterate. I still ponder this thought as I am struggling to read Braille.

From the third to the fifth grades my mother and father would read all my assignments to me. They would sit with me until all hours of the night to help me complete my homework, which sometimes included reading entire novels. At this point my mother insisted that I learn how to read Braille. During the fourth and fifth grades I learned to recognize the Braille code. At the end of my fifth-grade year I received a closed circuit television (CCTV), and this made me feel

independent again. My mother still insisted that I learn Braille, but I used the Braille class to do my other class assignments. I struggled through school using magnifying glasses and the CCTV.

Recently I have recognized that I have to receive proper training to improve my blindness skills. Learning Braille became a burning desire. Before I entered the National Federation of the Blind's Louisiana Center for the Blind, I was timed reading Braille at twenty-five words per minute. When I had been at the center for just over four and a half months, I was timed at 78.2 words a minute. Even more exciting, for the first time in my life I read a book in Braille. It was the first book I had actually read since the first grade. I had always had someone else read me the books, listened to books on tape, or had the computer read them to me. What a wonderful feeling it was to know that I was actually literate and could read a book on my own.

The bishop of my church asked me if I would give a talk at church when I returned home. I got on my computer and used the Internet to find scriptures and talks by church leaders on the topic that I was assigned. I studied and researched the subject and found some scriptures and stories that I wanted to use in my talk. Usually I would have spent hour upon hour memorizing the scriptures and the stories word for word. This time I decided to try something different. The night before I was to give the talk, I Brailled out the scriptures and stories with my slate and stylus. It took me about an hour instead of the five or six it would have taken me if I had tried to memorize it all.

That night I read the things that I had slated about three times. The next morning I read them two more times. I wanted to make sure that I could read the things I had written at a speed that would be comprehensible. When I gave my talk, I said a lot of it in my own words. But when I wanted to share the things that I wanted to say verbatim, I read

them from the paper in front of me. I felt extremely grateful for the privilege of being able to read Braille.

All of my life I desired to be able to read notes or share a story without having to memorize them. Giving the talk in church gave me a sense of empowerment, not that I take any glory from God, but I thank him for allowing me this blessing of learning Braille that I can use in my life. I now read the hymns and follow along in the scriptures during church, which is a blessing that until now I have never known. I am filled with joy for such a blessing in my life.

How to Increase Your Braille-Reading Speed

by Susan Ford and Ramona Walhof

Editor's note: Susan Ford and Ramona Walhof are sisters. Between them they have a broad range of reading and Braille-teaching experience. This is what they say:

Many Braille readers have never been encouraged to work to achieve good speed. Slow reading is a disadvantage throughout life and causes the reader to under-use and undervalue the reading skill. But there is no need to continue forever as a slow reader. Some Braille readers develop a speed of 200 to 400 words per minute as small children. They will retain that speed with little or no effort. Braille readers who could not attain good speed as young children, however, can do so with some work, and it is certainly worth the effort. It is also desirable for teach-

ers of blind children to encourage good Braille-reading speed.

Susan Ford developed good Braille reading speed as a small child and retains it; Ramona Walhof had fair speed as a child and has had to work to improve. Our experiences in reading Braille and teaching for years have given us some ideas which may help others in achieving increased speed. Try these suggestions, and talk with other good Braille readers. You should experience significant improvement.

1. Keep your touch light. You can feel the dots better if your fingers are moving lightly over the lines. To test this statement, try this: feel the back of one hand with the fingers of your other hand. Exert some pressure and rub your hand a little. You will feel bones and veins. Now barely brush your fingers across the skin. You will feel the texture of the skin and hairs. These details were hardly noticeable when you pressed down. The same is true of Braille. You do not want to know

what is underneath the page, but what is on the surface. This requires a light touch.

2. Check the position of your hands to insure that you are using the most sensitive part of your fingertips. Your hands should be curved so that the second joints of your fingers are only a little higher than the first joints closest to your fingertips. Your wrists should move just above the page. The most sensitive part of your fingers is just below the tip, but not as far back as the fleshier part right above the first joint.

3. You will read best if you follow the lines of Braille using three fingers on each hand. The middle and third fingers help to keep your place and increase speed, even though the forefingers are the primary reading fingers. It is always important to use both hands, even if one is less sensitive. Keep both forefingers on the line of Braille. Almost everyone has one dominant hand in reading, and it is not necessarily the same one that is dominant in other activities.

4. When you read Braille, you want your left hand to read the beginning of the line and your right hand to read the end. The best readers bring their forefingers together somewhere in the middle of the line, letting the right hand finish while the left hand returns to the left margin to locate and begin the new line. This process increases speed because you no longer have to pause to locate the new line. Your dominant hand will read a larger part of the line, but the two hands read independently, and your brain puts the words in correct order. If you have been a one-handed reader, your first step is to make your weaker hand follow the other one until it begins to help with the work. Make the hand you are trying to strengthen read at least one word at the beginning or end of the line. As you become more adept at this, what at first seemed to slow you down will help increase your speed. When you experience success at making your slow hand read one word, begin to require it to carry more of the load. If one hand is truly disabled, you can still read

Braille well enough to make it valuable. If one hand is merely less sensitive than the other, make the weaker hand work, and it will get more efficient.

5. Avoid bad habits. Many Braille readers have developed the bad habit of double-checking frequently in order to catch mistakes. It is important to keep your hands moving steadily forward with very little checking back. Avoid rubbing the Braille as you read it. Reading with someone who reads just a little faster keeps you from looking back. If you do, you will get behind. It is true that reading Braille requires movement, but the movement should be mostly forward, not up and down or backwards. If you move your hands up and down, you may move from one line to another without realizing it.

6. Avoid all Braille printed on plastic pages. Plastic is somewhat better than it was when it first appeared, but it will still discourage good speed because your fingers will

cling to the Braille as you try to move faster across the lines.

In some ways improving Braille-reading speed is much like improving speed in reading print. We recommend that you learn to skim. You can gather the sense of a passage by reading the first lines of short paragraphs and the first and last lines of slightly longer ones. If the paragraph is quite long, read a few middle lines as well. If you are reading conversation, skip or de-emphasize the "he said," "she asked," "I explained" phrases. Don't try to skip these in the middle of a line, but when they appear at the beginning or end and you are not reading aloud, they are unnecessary. You will know the content, and skipping unnecessary words is another way to permit your reading speed to increase slightly. This is part of learning to skim rather than actually increasing verbatim reading speed.

7. Develop a sight vocabulary in Braille. You can carry a packet of three-by-five index cards with frequently used words or phrases

on each. The earliest ones you make should be no more than four symbols. With practice you will begin to recognize the short words immediately. You can also recognize these letter combinations as parts of longer ones. Example: the word "and" also appears in the words "strand," "band," and "land," and so on. The word "honest" appears at the beginning of "honestly" and at the end of "dishonest." As you recognize sight vocabulary words more quickly, the longer words which contain them will come more quickly as well. When a group of twenty cards or so becomes familiar, exchange them for another set. Study them on the way to work or school and make new ones when they wear out.

8. Set achievable goals. Determine how much you read every day. Be truthful with yourself, even if you are reading only a paragraph a day. Set as your first goal to double this amount or to increase it by 50 percent. Be absolutely faithful to your daily commitment to read Braille; however, if one day you don't meet your commitment, don't worry

about it. Just begin where you left off and keep trying. When you feel comfortable reading this new amount, increase it again and make that your new goal.

9. Begin with very short passages. You need not read material written at your intellectual level. Many of us like to read children's stories. You can easily find short articles from magazines. It does not take long to be able to read a selection of three or four pages in one sitting. It feels wonderful when you can say that you have read a whole story.

10. Make Braille convenient for yourself. Keep a Braille book beside your bed, and tell people you have learned to read in the dark. Leave a book or magazine near your favorite easy chair. Carry a small magazine with you. Immerse yourself in Braille. Keep a Braille calendar in your desk, pocket, or purse. Begin an address and phone file. Make recipes in Braille. Try Braille crossword puzzles and other word games. Reading Braille—as much and as often as possible—is

the most important thing you can do to increase your reading speed. Read, read, read!

11. One of the more effective ways to improve Braille skill is to read along with someone else. A tape recorder will do too. The aural reading should be just a little faster than yours. Make yourself keep up. Reread the passage. The second time you will be familiar with the material. Your speed should increase. Keep at it till you are comfortable with the faster speed. Read something onto a tape yourself. Compete with yourself, each time trying to beat the original speed of your recording.

12. Subscribe to at least one Braille magazine that you enjoy. Read short articles, and then reread them more than twice, trying to read faster each time. Do not memorize. As the text becomes familiar, you will read much more rapidly. Be sure to read aloud sometimes to be sure that you are not skipping when you know the material well.

13. As you begin to see improvement in your speed, continue spending the same amount of time reading or doing even more. Reading faster will permit you to cover more material in the same amount of time. You must commit time in order to see significant improvement.

14. If you respond to competition, challenge someone to compete with you. Occasional timings are helpful, but only to determine if your reading speed increases. Don't overdo it. Instead of words per minute, it might be more helpful to measure pages per hour or per week. When you have something to read in Braille, complete it in that medium. Don't cheat and finish it on tape.

15. Use your Braille skills. Make a report from Braille notes. Give a speech using Braille cards. Make a report about something you have read in Braille. Get excited about Braille. It is fun to be literate. It is normal to be able to read at your own convenience and do it with facility. Don't deny yourself that

convenience and pleasure any longer. Believe in yourself and believe in Braille. It is worth the effort, and you are not too old, too stupid, or too lazy. Try it; you'll like it!

Practice Makes Perfect

by Sally Miller

Editor's note: Sally Miller is the mother of Anna Miller, a national Most Improved winner in the Braille Readers Are Leaders Contest, a literacy program for blind children sponsored by the National Federation of the Blind. Here is what Sally has to say about Braille and reading:

Practice makes perfect. That's what my mother used to tell us when we were kids. So when I started taking piano lessons, I practiced and practiced and practiced, trying my best to play perfectly. My teacher was a good one, so I learned to play the piano fairly well. Then in my teens I had the opportunity and the desire to learn to play the pipe organ at our church. Again I was fortunate enough to have a great teacher. I practiced and practiced, always looking for perfection. I got to be fairly good at playing the pipe organ. In

fact, the more I practiced the more I enjoyed playing both the pipe organ and the piano.

Now, forty years later, I'm still playing those musical instruments. I've done a lot of practicing in that time. I play better now than I did when I was younger. My practice habits are different and my playing techniques are more efficient. My timing is not as mechanical. My interpretation of the music is much more my own style. Without a doubt I enjoy playing more than I did as a teenager, and I'm better at it, but not yet perfect.

Let's face the facts. No matter how much I practice, I'll never be perfect. Yet somehow that doesn't seem to be the point. Practice has simply made me a better player. And because I play better, I enjoy it more, which spurs me on to practice again, which makes me a better player, which helps me to enjoy it more, which…well, you get the picture.

"Practice makes perfect" is a saying that can be applied to reading. In the first year she entered the Braille Readers Are Leaders

Her hard-won Braille skill allows Anna to participate fully in her church's worship services.

Contest, my daughter Anna read 175 pages. Due to her tremendous efforts to learn to read Braille (she was thirteen before she learned to read), we were very pleased with those numbers. But something astounding happened in the following year's when she again entered the contest.

Anna began reading on November 1 for the contest. Her Braille instructor, Mrs. Terrie Randolph, coordinator of the contest at the South Carolina School for the Blind, and Anna's classroom teacher, Ms. Irene Casey, encouraged her to read at school, and the family encouraged her to read at home. The pages started adding up. As she read, she was improving her reading skills. Words that had to be decoded at first or spelled out were becoming sight words, which made the pages easier to read. Her enthusiasm for reading large quantities of pages turned into a desire to read different books, and she enjoyed them more. Her inflection while reading greatly improved. This spurred her on to read more pages, more stories, more books. I was

begging, borrowing, buying, and Brailling books for her to read.

At the end of the three months of reading Anna had increased the number of pages she had read to 5,022 pages! During the contest period Anna would tell us that she wanted to win a prize. And she did. Not only was she recognized at the national level, but at the state level, and at her school. Mrs. Randolph added an award of her own—a trophy—to those Anna received from the contest sponsors (cash, a T-shirt, ribbon, and certificate). Anna wanted to show everyone she met the prizes she had won. They meant a lot to her. And rightly so. I think she got much more from this experience than she realizes now. Her practice of the basic skills of reading has made her a better reader. And because she is a better reader, she enjoys reading more than she did before.

When the contest had ended and we were sitting down to read, she said, "The contest is

over," as if to say, "but I don't have to read anymore."

I told her, "So now we can read just for the fun of it."

"Oh. OOOHHH!" she exclaimed.

A real sense of accomplishment plus improved skills have given Anna a sense of well being. This makes her more comfortable with reading than she had ever been before. Now she can read just for the fun of it. So she's not a perfect reader. I don't play the piano or the organ perfectly either; but that's not the point. The point is that I enjoy playing, and Anna enjoys reading.

A Montana Yankee in Louis Braille's Court

by Carolyn Brock

Editor's note: Carolyn Brock, a native of Montana, is one of the millions of blind people who have benefited from Louis Braille's invention. Here is the delightful account of her trip to Louis Braille's home (now a museum) in France and what she learned there about the origins of Braille:

Blind or sighted, most people have heard of Louis Braille. They generally know that he was French, lived over a hundred years ago, lost his sight as a child, and grew up to develop the system of raised dots which has become the means of reading and writing for blind people all over the world. But there is much more to the story.

While planning a two-month stay in France last summer, my husband and I decid-

ed that a visit to the Braille home would be a worthwhile excursion. On a previous trip to France I had visited several centers for the blind, both in Paris and in Burgundy. Everywhere I was impressed with the pride that blind French people feel in the work of Louis Braille; at each center I was repeatedly reminded that Braille was originally a French system. This summer I learned that sighted French people share that same pride. Several days before the planned trip to Coupvray, we visited the Pantheon, the huge domed memorial to great French citizens in all fields of endeavor. Almost as soon as we walked in the door (I carrying my white cane), we were approached by a museum administrator who explained to me again how proud the French are of Louis Braille and directed us to his memorial site. I was given the English language version of a small book about Braille and the village of Coupvray.

The visit to Coupvray lived up to our expectations. It is only a mile or two from Euro-Disney and has only recently been sur-

rounded by the sprawling metropolitan suburbs. But Coupvray itself retains its country village flavor. The old part of the village is very much as it must have been in 1769, when Louis Braille's grandfather built the original house. Like most village houses of the time, it was a single room with a niche for the parents' bed built into an outer wall. In the next generation Louis Braille's father, a saddle-maker who also owned vineyards, was successful enough to build an adjoining workshop accessed by leaving the living quarters and walking around the outside of the house to the workshop entrance. Over the years the Brailles had the money to add an upstairs bedroom each time a child was born, with two different stairways leading up from the two sides of the house. To this day the house is on the edge of the village, with a rutted road, navigable only by a four-by-four vehicle, leading off into the woods just behind the house.

Into this family, very affluent for villagers of the time, Louis Braille was born in 1809,

the last of four children. He was blinded at age three in an accident with his father's work tools. When he was fifteen, his family sent him to the School for the Young Blind in Paris, an expense which no ordinary village family would have been able to afford.

At school in Paris young Louis was an outstanding student. He was taught the system of tactile writing being used at the time, which used conventional letter shapes. This embossing system had been developed by Valentin Haüy (who standardized the use of the white cane in Europe, and after whom the largest center for the blind in France is named). The disadvantage of the system was that there was no way for an ordinary blind person to write it. Young Louis also saw an experimental system, using raised dots instead of letters, developed by a French army officer to communicate with his men at night. Not only was the raised-dot system easier for a blind person to read; it could also be written with very little special equipment. Louis Braille went to work refining the sys-

tem. The result was the French version of uncontracted Braille, with a symbol for each letter of the alphabet and the basic punctuation marks.

After becoming the first blind teacher at the school, Braille set to work teaching his pupils this new system of reading and writing. The result could have been predicted by anyone familiar with the story of Braille in modern times. The blind students loved the Braille system and used it to take notes and to write to each other. The other teachers at the school, all of them sighted, were totally opposed since they could not read it. But Louis Braille continued to teach the system, and by 1840 the French Ministry of Education had little choice but to accept it as the standard method of writing for the blind. It has since been modified for use in virtually all of the world's major languages.

The Braille house in Coupvray is a monument to this remarkable chain of events. The living room of the house is still sparsely

furnished, much as it was in the early nineteenth century. In the huge fireplace hang cooking pots used at the time. Next to the fireplace, in a child-sized chair, sits a life-sized doll of a little boy, Louis Braille at age four or five, dressed in the clothing of the period.

Next door in Simon Braille's saddle-making workshop are the crude wooden workbench, table, and chairs, much as they must have been during Louis Braille's childhood. Display cases contain collections of the saddle-making craft. Climbing either set of stairs, one arrives at a landing, where the wall has been knocked out, uniting the two staircases and thus the two halves of the house. On the landing stands a life-size girl doll, one of the Braille sisters, also dressed in authentic clothing. She indicates the way to Louis Braille's room, which now houses the rest of the museum.

It is in Louis Braille's room that a visitor gets a sense of the magnitude of Braille's accomplishment. Here are displays of the

early equipment used to write Braille, primitive ancestors of our interpoint embossers and refreshable computer screens. But the most moving tribute to Louis Braille comes from the testimonials to him which are displayed throughout the room. There are cards and letters from all over the world, many of them bearing stamps commemorating the work of Louis Braille. Over and over, in many languages, they tell the stories of blind people whose lives were enriched and transformed by the work of this one person. It is a fitting monument to a man who over a century ago began changing what it means to be blind.

What I Prefer: Courtesy Tips from a Blind Youth

by Sarah Weinstein

Editor's note: Sarah, a blind student from New Jersey, developed this list of courtesy tips for a workshop for classroom teachers and aides. She was twelve at the time. Later the list was edited and revised for publication in Future Reflections*, the National Federation of the Blind Magazine for Parents and Teachers of Blind Children. Here is what she has to say:*

1. I like to walk independently. If I need directions, I want people to tell me with words (verbally) which way to turn. Touching and moving me with your hands without my permission feels disrespectful.

2. When I do want hands-on guidance, I want people to guide me the proper way. I

will take your elbow. If I am guided from the back—that is, someone takes my arm—I'm being pushed, and I don't like it.

3. My Braillewriter, my cane, my Braille Notetaker, and my Braille watch are my equipment. They are not toys for my friends to play with.

4. When you say hello to me, please tell me who you are. I don't always want to ask, "What's your name?" or "Who is it?" Even if you think I should know you, there are lots of reasons I may not recognize your voice.

5. When the teacher tells the other kids to get their books out, I want to go get my Braille books by myself too. Don't send another kid to get my book for me.

6. If I am stuck on a word and a teacher doesn't know Braille, he or she can still help me. The teacher has a print copy of exactly what I have in Braille.

7. I want everyone to understand that my cane needs to be next to my desk. I don't want others to complain about it.

8. I feel good when teachers say things like, "Rachel, you and Sarah can work together on this project," or "Kevin, you and Heather and Sarah can walk together on the field trip." When I hear them say, "Be Sarah's helper," I feel sad.

9. Please tell me if you are standing there holding the door open for me. And tell me which side (my right or left) the door is on. Then I can reach out and help hold the door as I walk through.

10. I want people to let me be independent. If you're not sure when or how to help, ask me!

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1800 Johnson Street
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