

## **The History of The Ten No's**

### **The Ten No's**

No textbooks	No grades or scores
No workbooks	No tests
No worksheets	No student grouping by ability
No homework	No teacher-provided answers to problems
No raising hands to answer teacher questions	
No child left behind	

### **Guiding Philosophy**

None of us is as smart as all of us. With 30 children in a class, each child has 30 teachers - the classroom teacher and the other 29 children.

### **My Focus**

In the [But Then...](#) sub-section of the [First In-between Year](#) section of [The Book of IFs - Chapter 2 - My Path to Becoming a Teacher](#), I wrote about my decision to drop out of Law School on the first day of classes to become an age-group swimming coach instead. I said that what I loved about coaching was that it gave me the opportunity to change how children felt about themselves. My focus as a coach was not on producing winners. It was on having each child measure his or her own achievement by his or her own personal improvement. When accomplishments were measured that way, every child could experience a steady sense of accomplishment, and all the children in my care, not just the first-place finishers, could feel good about themselves.

In the [Fifth-Grade](#) sub-section that followed, I said that the perfect side job for me as an age-group swimming coach was being an elementary school teacher. My work schedule as a teacher would match perfectly with the hours I would be coaching. Becoming a teacher was also another opportunity to change children's feelings about themselves.

The [Sophomore Year - Clinical Depression](#) section provides the background for what turned my desire to be a lawyer into my much stronger desire to be both an age-group swimming coach and an elementary school teacher. While my Castilleja School bus driving experience (see the [Castilleja School](#) sub-section of the [College Senior Year](#) section) had shown me I could change behavior, the changes I was able to make as a coach were much greater and affected much younger children. My bus driving job limited my contact with my passengers to less than an hour a day. My contact with my swimmers was much longer and much more open. I was around my swimmers during practices and also when they and their families were spending time at the pool as members of the club for which I was coaching. Contact with the students in my class would be for several hours each day. Plenty of

time to help both my swimmers and my students feel far better about themselves than I as a child had felt about myself.

### **No Textbooks - No Workbooks – A Starting Point**

When I first decided to become an elementary school teacher, it did not occur to me that I would have to pay particular attention to the curriculum being taught. The curriculum used to teach me had nothing to do with my depression that reared its ugly head in my sophomore year in college. If I had become a teacher through a traditional training program, as I originally planned to do, then I would have ended up teaching in the same kind of middle-class schools that I had passed through as a child. I would never have felt the need to abandon all the materials with which I myself had been so successfully taught.

The teacher-training program I ended up in was not at all traditional. That program's philosophy was: What is being done now isn't working, so don't keep doing it, try something different. Since coming up with different ways of teaching was the whole purpose of the teacher-training program, I decided to start by not using any of the state-approved textbooks or workbooks my school had provided me. The No Textbooks and No Workbooks No's were my start-from-scratch starting point.

### **What I knew About Teaching**

For me to start from scratch, I had to think about what I knew about teaching. I had not taken any classes on how to be a teacher, but I had been a student. So, I would start by looking at things from a student's point of view.

Two things I knew about myself as a student. First, I was a top student. Second, I would always be a top student. I would always be a top student because the same people with me in any current grade would still be with me in the next grade. If I were a top student in second- or third-grade, then I would still be a top student in fourth- or fifth-grade, and so on, because I would still have the same classmates.

The only time I thought my top student ranking might change was when I went to college. The college I picked to attend was filled with other top students just like me. That might cause me to end up somewhere in the middle of all the other tops. It turned out that I was still a top student as a college freshman. So, college would not be any different for me than grade school or high school had been.

What I had not given much thought to as I was growing up was that just as I was a top student every year, students at the bottom were at the bottom every year, as well. These bottom students were now the ones I would be teaching. The methods and materials that kept me at the top

were the same methods and materials that kept the bottom students at the bottom. The textbooks and workbooks I had learned with had worked for me as a student, but they would not work for me as a teacher.

If I wanted to change how my students felt about themselves, then I would have to focus my attention on the curriculum I would be teaching. My goal for myself as a teacher was that every single child in my class would learn without exception. There would be no bottom students. We would have all tops. The first step towards my reaching this goal was abandoning the textbooks and workbooks. They were the reason that the positions of the top and bottom students were so locked in place.

### **My Cousin Jean**

Children are born ready to learn. Every baby is a naturally incredible learner. Just look at the learning ability shown in every child's mastery of language. A baby starts out with no language at all, and just by listening to the people around it, it will learn whatever language or languages are spoken to it.

Children will learn as many different languages as they hear. While I was in Iceland giving a workshop, I chatted with a child in kindergarten who spoke English with me, Hindi with her grandmother, and Icelandic with her teachers. Was she a genius? If I were her parents, I would say YES! But as a teacher, I would say that's just what children can do.

I was born in June. My mother's sister had a daughter three months later. My three-month-younger Cousin Jean and I spent a lot of baby time together, and my baby progress was always compared to hers.



Cousin Jean crawled before I did, walked before I did, and talked before I did. My parents came to the conclusion that I must be mentally retarded. My father was so convinced of this that he was planning on

not enrolling me in kindergarten when the time came and just taking me around with him at work.

There are fast learners and slow learners, but there are no non-learners. Fortunately, since I was just a baby, I did not pick up on my parents' concern. I simply learned to crawl and walk and talk at my own pace, just like every other child. However, when children's student lives begin, school strips their natural ability to learn at their own pace away from them. And if, like when I was compared to Cousin Jean, a child learns at a slower rate than the school demands, that child will be graded accordingly and made to feel that he or she is slow or dumb.

### **Textbooks and Workbooks Don't Even Pretend**

Textbooks and workbooks do not even pretend to teach every child while leaving no child behind. No children in any classroom will ever be ready for the same page in any textbook or workbook at the same time. Textbooks and workbooks are simply convenient ways for publishers to market their materials, they have nothing at all to do with helping every child learn. Since my goal was teaching every child and leaving no child behind, textbooks and workbooks are not anything I would ever have the children in my classroom use.

### **The Crying Girl**

In the [Get a Job](#) sub-section of [The First In-between Year](#) section of [The Book of IFs - Chapter 2](#), I mention being hired as the assistant coach for an age-group swimming team. The head coach for whom I was the assistant spent many of his off-hours earning extra money by giving swimming lessons to the children of club members. My off-hours were spent serving as the pool's lifeguard.

In a group of girls the coach was teaching, one girl would start to cry every time he asked her to swim the length of the pool. She refused to even try. When she cried, he called her a big baby. That name-calling did not stop her tears. None of the other girls would swim the length of the pool either, but they didn't cry about it. So, he just busied the girls with other swimming tasks during his lessons.

One day, the coach asked me to substitute-teach this group of girls for him because he had another commitment at that time. When I started the lesson, the crying girl had not yet started to cry because I had not yet asked her to do anything. I began the lesson by telling her that, as I walked or swam alongside her, depending on the changing depth of the pool, I wanted her to swim as far down the length of the pool as she could. I said, "As soon as you feel you can't swim any farther, raise your head up, and I will carry you the rest of the way." She swam six or seven strokes, raised her head up, and I carried her the rest of the way.

I did this for each of the other girls in their turn. Each of them ended up swimming a few strokes, stopping, and then being carried by me to the end of the pool. Then I again asked the no-longer-crying girl to swim as far as she could with the same “stop when you want to, and I’ll carry you” rule. As I walked and swam alongside her, ready for her to stop anytime she wanted, she swam the entire length of the pool without stopping. And in their turn, so did each of the other girls.

What was obvious to me, as I had been watching the girls’ lessons from my lifeguard perch, was that they were already good enough swimmers to swim the length of the pool. They had simply been afraid to try because they were afraid they couldn’t do it. They might get halfway down the length of the pool and then end up embarrassing themselves by floundering or practically drowning and needing to be rescued.

All they needed me to do was take their fear away. All I had done was make it perfectly okay to try and not make it. If they didn’t make it, there was no embarrassment involved, simply a free ride to the end of the pool. Now, there was no longer any harm in trying. It had been equally apparent to the coach that the girls were good enough swimmers to swim the length of the pool. However, he had never thought to change what he asked them to do. If they did not do what he asked, then there was something wrong with them, and not with what he was asking.

The difference between a child succeeding and failing could sometimes be as simple as changing what we ask the child to do. It could sometimes be as simple as just taking the fear of failure away. So, for me to make my bottom students into top students, the first thing I would have to do would be to take the fear of failure out of learning. On my list of Ten No’s, these two No’s do just that: No grades, No tests or scores. The crying girl had taught me about taking the failure out of learning. It was Chester who taught me to put that knowledge to use in my classroom.

### **Chester and The No Grade Promise**

I had decided to abandon the textbooks and workbooks the school district provided for my use and begin the process of creating my own curriculum. For my first year of teaching, I decided to focus my attention on reading. I would let my students’ next year’s teacher worry about teaching them math. To gloss over the fact that I wasn’t teaching any math to my students, I would occasionally hand out a page of basic arithmetic problems for my students to solve.

Chester had previously been held back for a year in school. Being held back had given Chester an overriding fear of failure, which dominated his school life. Chester had literally burst into tears when I gave him the first simple arithmetic paper to do. When I asked him what was wrong,

he said, "I'm going to fail, I know I am, and I don't want to fail." He wanted to do well, but he knew he couldn't, and the paper I had just given him was about to be proof.

I made a deal with Chester right then. If he would always try his hardest in arithmetic and do the best he could, then I promised that he would never get lower than a "C". I said that as long as he tried, he would never fail in my classroom. I told him it was his job to try, but if he didn't get something right, then it was my fault for not teaching him better. I told him that it was okay for him to make mistakes because I used his mistakes to decide what else I needed to teach him. If he didn't make any more mistakes, then there was nothing left for me to teach him, and I might as well go home. Chester took me at my word and began trying to solve as many problems on the page as he could.

Then, I asked myself why I had told Chester I would never give him lower than a "C"? Up to the point Chester cried, I had not given grading much thought at all. I had not been grading anything we were doing during reading, so why had I even mentioned giving him a "C"? If it was Chester's responsibility as a student to try, and my responsibility as a teacher to use any mistakes he might make to know what else to teach him, then why was I assigning him any grade at all? The person who should be graded was the teacher, not the student. I then told Chester to forget the "C". As long as he was trying, it was my responsibility to teach him what I wanted him to know, and the only person who should be graded was me, based on how well or poorly I had taught him.

### **No Grades**

Prior to that page of arithmetic problems I had handed out, I had not graded any student's work. It was not an official policy I had developed, I just hadn't been doing it. Now it was official. Since my goal was to change how students felt about themselves, there would be no grades assigned to anyone in my class.

Thanks to Chester, I have never graded any child's work. If I want to take the fear of failure away for the children in my class, then I cannot punish them for the different rates at which they learn. Grades are how we punish children for not all learning at the same rate. Should my parents have graded me because I did not walk or talk as soon as my cousin? Actually, my parents did give me a failing grade when they compared me to my cousin, but that failing grade did not harm me because I was too young to know that I had failed.

If my parents had graded my efforts and conveyed those grades to me, do you think the grades would have helped me learn to walk or talk any sooner? Or would they, instead, have worked to destroy my feeling of

self-worth? Despite what my parents perceived as my failing, I was still allowed the time to learn at my own pace without being taught that I was inferior to someone else. Why is it that when a child fails to learn in school, we give a failing grade to the child and not to the teacher?

### **No Tests or Scores**

Tests in school are meant to measure knowledge. The scores on tests are used to assign grades to students. Since I do not grade my students, there is no need for me to test them. There is no need for tests to measure what my students know because the materials they use for learning allow me to see what they do and do not understand.

I do not test, but I do assess. Tests come with grades and, for far too many students, a sense of failure. To gather information about what my students do and do not know, I use different kinds of assessments, none of which require any formal testing or scores.

### **Problem Out the Door Assessment**

If I have introduced a math concept during the day and wish to know who understands and who needs more help, I use what I call “The Problem Out the Door” at the end of the day as my assessment tool. I give every student a piece of paper. I then write a math problem on the chalkboard for everyone to see, the solution to which involves understanding the concept introduced that day. Although my students are usually allowed to work together and share answers, the rules for this end-of-the-day activity are no talking and no sharing.

As each child finds an answer, he or she writes it on his or her paper and hands it to me as he or she leaves the room. If the child has the answer right, I say “Correct,” and the child leaves. If the child’s answer shows he or she may understand but may have rushed too quickly in solving the problem, I say, “Try again,” and send the child back to his or her desk. If the child’s answer shows me he or she does not understand, I say, “Close enough,” and send that child out the door. It is that child I will be spending extra lesson time with the next day.

### **The Class List Assessment**

I make a list of the concepts I wish to assess. I then sit down after school with a class list of all my students. As I read each student’s name, I ask myself if that student has mastered that concept. For any student for whom I cannot answer that question, I know it is my responsibility to spend enough time with that student so that I know what he or she does or does not know. Knowing my students well is my responsibility as a teacher. The Class List Assessment helps me meet that responsibility.

### **Other Assessment Tools**

Every book authored by the Center is available in PDF format free of charge through the Center's website home page. Chapter 3 of the *Mathematics Their Way Summary Newsletter* lists a variety of assessments. The Indexes for both *Mathematics Their Way* and *Mathematics a Way of Thinking* also list each book's assessments.

### **No Worksheets**

The initial commitment I had made to myself was no textbooks and no workbooks. The reading curriculum I was creating in my first year of teaching didn't use any worksheets, so I hadn't given worksheets much thought one way or the other. I was not really teaching any math at all that year because I was focusing all my attention on reading. I figured that if all my students were good at reading, their next year's teacher could focus on teaching them mathematics. As I said earlier, I did introduce a simple arithmetic worksheet to my class at one point, just so I could pretend I was not ignoring mathematics altogether.

The problem I could see right away was that worksheets had failure built right in. There was a fixed number of problems on a page. That meant the worksheets would automatically separate out my students by ability. The faster students would finish quickly, while the slower students would finish over a wide range of time, including not finishing at all. So, I simply abandoned the use of worksheets for my class lessons.

When I began teaching mathematics in my second year, I came up with a worksheet replacement. When I wanted my students to practice an arithmetic operation, I had them use dice to generate the numbers for their problems. I also had them work for a set number of minutes and not for a set number of problems. If I wanted them to create and solve problems, I would state the number of minutes they were to work. When the assigned time was up, every student, fast or slow, was done with the assignment. The worksheet problem was eliminated.

### **Kevin and Brenda**

When I asked my whole class a question, hands would be raised in the traditional way by those wanting to provide me with an answer. One day, I noticed that every time I called on someone, Kevin was raising the lid on his desk and momentarily disappearing from view. I don't know how long he had been doing this before I noticed. After class that day, I took a look inside Kevin's desk. What he had there was a list containing the names of everyone in class. On his class list, he had been placing checkmarks by the names of the students that I had called upon to provide the answers to my questions.



Many names had no checkmarks by them at all because there were children who had never raised their hands to provide answers. Other names also remained unchecked for children who had raised their hands who I had never called on for an answer. In addition to showing how many students had not been called upon for whatever reason, it was also obvious from Kevin's list that I was calling on Brenda far more than any other student. Once I saw that list, I began calling on Kevin a lot more, to cover up the favoritism I had been showing to Brenda.

Kevin's list made it obvious to me that there was something wrong with what I had been doing. His list showed me how many of my students were being left out by the hand-raising process. Raising hands in response to the teacher's questions was how it had always been, and as a student, I had always been an active hand-raising participant. As a student, I had never given any thought to whether any other student's hands were raised or not. To me, my hand was the only hand that mattered. However, I was no longer a student, I was the teacher. As a teacher, I should not be leaving any student out, and hand raising to answer the teacher's questions had been doing just that.

### **No Raising Hands to Answer Teacher Questions**

Chalkboard paint turns the surface you paint it on into a chalkboard. It is painted on wooden surfaces in schools to create traditional chalkboards, but wood is not required. For my class, I gathered enough cardboard nylon stocking boxes so that each student could have one. I painted the inside of the top with chalkboard paint. I then added a piece of chalk and a piece of cloth to serve as an eraser to each box.

Once I had made chalkboards for all my students, hand-raising was no longer required to answer my questions. When I asked my class a question, I would say, "Write your answer on your chalkboard and then put your chalkboard face down on your desk until everyone in class has written their answer."

### **Idar, India - A Demonstration Lesson**

On one of my visits to India, I was fortunate enough to be asked to give a demonstration lesson to a group of children. I have often spoken to teachers. However, only one other time in all my travels have I ever been asked to teach a group of children. For this occasion, the principal had my presentation filmed.

The person holding the camera only filmed the first few minutes of my talk. He expected to film me giving a lecture to the students, but when I stopped talking and the students started working, he stopped filming.



The two-and-a-half-minute video clip can be seen at the 00:22:40 point of the Teaching Every Child with NO Child Left Behind (Mathematics) video link on the Center's Home page. Just below the link to the video, there are instructions for how to get the video's interactive Table of Contents to appear, so you can go directly to the 00:22:40 time in the presentation.

I now show this video at the beginning of all my workshops and ask the teachers watching it to think about what I, as a teacher, paid the most attention to in my interaction with the students. For my purpose here, I will summarize what the video shows.

When I arrived at Idar, I was not told the grade or grades of the children I was to teach, and it didn't occur to me to ask. When I entered the room where I was to give my lesson, the children seemed to me to be eleven- to twelve-year-old boys and girls.

The children were sitting lecture-style in five rows of seven students each. This is not what classrooms look like in India or just about anywhere else. The principal had invited me to give a demonstration lesson to a group of students, and he assumed, as did his cameraman, that my demonstration would be some sort of lecture.

I started my lesson by asking the whole class, "How many children are in the class?" I then called on three hand-waving students, one after the other, who told me the number of students was "33," "35," and "36," respectively. Three different students, three different answers.

I say to the class that we now have three different answers to my question and ask the class as a whole: "How can you find the answer?" I then call on a hand-raising boy in the back row, thinking he will tell me a

way to find the answer, but instead he says “41”. I then say, “I think I’m going to have to help me count.” I then ask each row in turn how many children are in their row. The first two rows each say there are seven in their row. The third row says there are eight in theirs. I then say their row looks a lot like row two, and I count row three myself to confirm there are seven. And the row-counting continues. When we were done counting, we determined that there were 35 students in the class. Then I ask: “What fraction of the class are you?” The video clip ends before we hear any child’s answer.

When the video is over, I ask the teachers in my workshop what they think I paid the most attention to in my interaction with the students. The teachers generally respond by talking about the variety of answers the children gave to how many children there were in the room.

I know why each of the children gave the answers that they did, even the child in the back who said 41. There was a row of teachers observing my presentation, sitting behind the students. The child who said 41 counted everyone in the room, including the teachers. The row that told me there were eight in it had added their teacher, who had been standing at the far end of their row, to their total. There were logical explanations for the other numbers, as well.

However, the variety of numbers I was given is not what I had paid the most attention to. And, unless you have actually seen the video, there is no way for you to know with what I was the most concerned.

I then show the video to the teachers in my workshops a second time and ask them to watch what the children in the first two rows do when I ask how many children are in the class. What they will see and what you will see if you watch the video is what I saw. No one in the first two rows even turns around to count.

What did the children in the first two rows have in common with one another that caused none of them to turn around? While their failure to even try to count their classmates is the most obvious, there were very few children who counted, and only a handful of children who even raised their hands to provide an answer to my question.

There is a girl sitting at the beginning of row three who is the first to raise her hand. She reminds me of myself when I was a student, always the first to count and the first to raise my hand, or at least trying to be. However, most children in class knew they didn’t need to count. They knew that children like me would do the counting for them. Why should they even bother counting? Just how many children in this class of 35 would I be calling on to provide an answer anyway?

If we are to teach every child, then we must get every child involved. If the cameraman had kept on filming, you would have seen what happened next. Each child had with him or her a notebook. So, for the next question, I asked all the children to write their answers on a blank page in their notebooks and put their notebooks face down in their laps until everyone had an answer. When every child had an answer, I had all the children hold up their notebooks, and I took the answer I saw most often as the class answer to my question.

I have already said that there is no raising of hands to answer teacher questions in my class. That's what the individual chalkboards are for. Had I first asked everyone in that Idar class to tell me how many children are in the room and write their answer on a page in their notebooks, then everyone would have had a reason to count. Everyone would have been involved, including the children in the first two rows.

### **The Class Answer**

When hands are raised to answer the teacher's question, only the children who think they know the answer raise their hands. Why would anyone who doesn't know raise a hand? The ones with the nerve to volunteer an answer run the risk of being told that they are wrong. When every child is asked to provide an answer, the children who have little confidence in their answer are required to provide one anyway and have their potentially wrong answer exposed to the whole class. That, of course, assumes the teacher will say who was right and who was wrong.

The answer I see that is the most common is the answer I announce as the class answer to my question. As I said near the beginning of the video clip, I did not know how many children were in the room because I had not counted them. As it turned out, I did end up counting the children in the room because I had not yet asked the children to record their answers in their notebooks.

If everyone in class had counted and then written their answer in their notebooks, I would have had everyone hold up their notebooks while I checked their books for the answer that was the most common. Whatever that answer was, I would announce as the class answer to my question. There would be no teacher answer given.

Let's assume that the number that appeared the most often was 34, meaning the majority of the children forgot to count themselves. I would say, the class answer to how many children are in this room is 34. If you have 34 as your answer, then explain how you got your answer to someone who has an answer different than yours. If your answer is not 34, then explain to anyone around you who has 34 why you think your answer is right and not theirs. The children then talk with each other

about their answers, and the children who think 35 is correct have a chance to get children with a different answer to change their minds.

Traditionally, the children who had 34, or some other number that was not 35, would be declared wrong by the teacher. Now, if they are to be corrected, it is through discussing their answers with their classmates. Children learn to talk with each other about their answers. They also learn to help each other learn, as well.

### **No Teacher-Provided Answers to Problems**

Chalkboards and class answers are for use only after my students know how to find answers. “How many children in the class?” is a good example. The class may not have known the answer, but they certainly knew how to find it. In my class, I do not provide answers. I teach my students how to find the answers for themselves. Finding the answers is what students working together do.

As I am teaching my students ways that answers can be found, I continually ask them to check their neighbors’ work and have their neighbors check their work, as well, to see if my instructions have been clear. I always phrase asking my students to check each other’s work as checking to see if I have made my instructions clear. If a child does not understand, it is not the child’s fault. I am the teacher. It is my responsibility to make sure every child understands.

### **No Student Grouping by Ability**

[In the Book of IFs - Chapter 7 – My Classroom – Years One and Two](#), I describe my beginning efforts at creating a curriculum that would teach every child while leaving no child behind. An essential component of my reaching my goal was the abandonment of grouping my students by supposed ability. I say “supposed ability” because the ability by which students are generally grouped is the ability to do well in school, which does not automatically correspond to doing well in life. Grouping students by ability means clustering the students who do well in school together and clustering the students who do poorly together, as well. Separating the children who get it from those who do not is exactly the opposite of what is needed. The ones who can help and the ones who need the help should be working side by side.

From my very first days as a teacher, I have never grouped my students by ability. My students can work with whomever they please. If a student has a question about an instruction I have given or anything else related to the lesson at hand, my rule for the question-asker is to ask your classmates right around you what the answer to your question is. If no one in your group knows the answer or there are conflicting views on what the answer might be, then all of you together raise your hands

and ask me what you all need to know. If I am curious to know who understands and who does not, I can always use the assessment mentioned earlier to let me know.

For no student grouping by ability to be effective, the curriculum must allow the faster students to never feel they are being held back, and the slower students to never feel that they are being left behind. You, the reader of this book, will see for yourself that the curriculum presented in the mathematics and reading chapters that follow does just that.

### **No Homework**

My initial decision not to assign any homework to my students was because I had several latchkey children in my class. Most of my latchkey children wore the key to their house on a string around their necks. Latchkey refers to the key that children need to enter an empty house. Latchkey children are children who take care of themselves with no adult supervision after school on a regular basis. Latchkey children as old as my students often take care of younger siblings after school, as well. I did not wish to add homework from school to the other responsibilities these children already faced at home.

While my initial decision not to assign any homework to my students was because of my latchkey children, I soon decided not to assign any homework to any of my students in any year I taught. There is more than enough time in the school day for me to teach every child what he or she needs to know during my time with them. After school, I believe children should be free to be children. Hanging out with friends, playing tag, kickball, riding a bike, or just being kids. For any parent requesting homework, I would say the best homework for your child is having your son or daughter read a book. My classroom library has plenty of them.

### **Learning Styles**

A question I am asked often is, “How do my teaching methods accommodate different learning styles?” One example of the belief that our teaching methods should make allowances for the different ways we may learn is one of my favorite places to take my students for a visit, the Exploratorium in San Francisco. The Exploratorium believed that people have different ways of learning and of knowing, and that these differences should be accommodated in the ways we teach. In fact, the Exploratorium was actively engaged in both research and evaluation of these different ways to help find out how people learn and how this knowledge can be used to improve people’s learning.

It is reasonable to assume that children have different learning styles. However, before they come to school, all physically able children have learned to walk and talk in the same way, independent of any supposed

differences in their learning styles. If all physically able children have learned to walk and talk before they come to school, why is it that so many children become slow or non-learners once in school? If learning styles exist, these styles have less to do with a child's actual learning capability and more to do with how the child is taught in school.

Children who have learned to walk and talk have already demonstrated they are perfectly capable learners. If these little learning machines do not do well in school, the fault is not the child's. The only time differences in learning styles affect children's learning abilities is when that child comes to school. The children who do well in school are good at learning the school way. The children who don't do well in school are equally capable of learning, but not in the way the school has chosen to teach them.

### **No Child Left Behind**

Do I, as a teacher, pay any attention to learning styles? No, I do not. Throughout the world, when parents teach their children to talk, or, rather, watch them learn to speak, do parents need to think about their infant's learning style? Or do they just talk and talk and talk to the child and be very pleased with the almost-words the child says back?

All of my fifth graders did so well on the math test (see [Introduction - Credibility](#)) because they had all helped each other learn. They were all taught the same way using the same materials. They may have had different learning styles, but regardless of how they absorbed the information, the materials they used were all the same. Our responsibility as teachers is to set up the learning environment and then let our students help each other learn.

### **Making Learning Relevant**

As I said earlier, children are born ready to learn. They are naturally incredible learners. The difference between learning that children do before they go to school and learning in school is that learning before school is allowed to proceed at each child's natural pace. The learning is also relevant to the child's life. When children come to school, learning at their own pace is taken away from them, and often, so is relevancy.

Children who do well in school have at least two things in common. First, their pace of learning happens to match the pace the school has set. Grades at school do not measure children's ability to learn. Grades simply measure a child against the rate of learning that the school has decided to reward. Second, they are good at learning nonsense. Outside of school, children learn what they need or want to learn. They learn to walk, talk, ride a bicycle, eat with their mouth closed, swim, throw a baseball, skate, or anything else that a child may want or need to do.



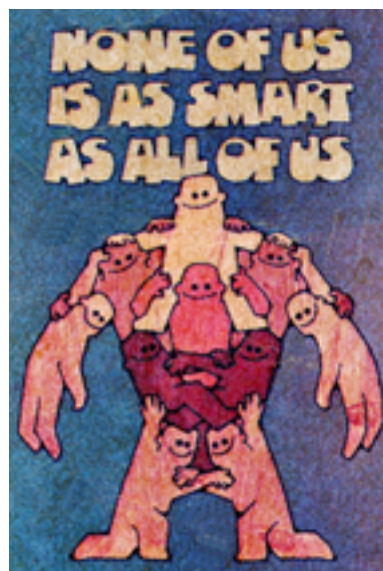
At school, children are required to learn whatever they are told to learn, even if what is being asked makes no sense to the child, and even if it is completely irrelevant to the child's daily life. How many elementary school children need to know how to divide fractions, calculate the area of a circle, recite times tables, or spell hippopotamus when not in school?

School will always teach children things that they do not yet need to know in their daily lives. These lessons will, of course, include things like how to divide fractions or calculate the area of a circle. However, to make it possible to teach every child while leaving no child behind, whatever we choose to teach must be made both relevant to the child and presented at a pace that lets every child help every other child learn.

We can present the rules for dividing fractions as just another bit of nonsense to be memorized and parroted back on command, or we can present that same concept as a pattern to be discovered and shared by the children themselves. If we choose nonsense, children like I was when I was in school will still do well, but we will continue to leave many other children behind. Making every lesson relevant is an essential step in making it possible for every child to learn and leaving no child behind.

### **Guiding Philosophy**

The guiding philosophy of the Ten No's is: None of us is as smart as all of us. With 30 children in a class, each child has 30 teachers - the classroom teacher and the 29 other children. In every aspect of my teaching, I actively encourage my students to be involved in helping one another learn. The poster below is mounted on my classroom wall.





**The Ten No's – A Starting Point**

The Ten No's provide a framework. They say what we will not do. Knowing what not to do is only a starting point. Even more important is knowing what to do instead. The Ten No's evolved as ways were sought to teach every child while leaving no child behind. What also evolved was a curriculum for reading and for math that accommodated every child's learning pace while also making learning relevant to each child. [Chapter 2 - A K-6 Math Curriculum](#) and [Chapter 4 - The Reading Program](#) describe those curricula.