

**EDUCATION
GUARAN-
TEED**

Testimony of John Jensen, Ph.D

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I appreciate your interest in how you might help Alaska's children. With the hope that you would like to become known in later years as "the legislature that transformed education," I'd like to make some prepared remarks on three issues, and then follow up with any discussion you wish. The three issues are 1) what went wrong with education, 2) what's needed to correct it, and 3) what legislative initiative is an appropriate starting point.

1. WHAT WENT WRONG. Many authors and researchers have described the problems of education in excruciating detail, but often end almost in hopelessness, concluding that it's a crazy world and that institutions don't change. What we want instead is an understanding of the situation in terms of causality. What small changes can bring about big outcomes? If you plant one seed, you get a cabbage; with another, you get an oak. So we're asking "What went wrong with education that can help us identify changes we need to make?"

In the early part of this century, an eighth grader learned in school more about the world than many college graduates know today because teaching methods then aimed for comprehensive mastery, in-depth academic knowledge. Progressive Education, led by John Dewey, specifically scorned the idea of "piling up information," and wanted students to master their direct experience, shifting the emphasis from learning to good conduct.

This emphasis entered teacher training and in time teachers lost track of how to obtain comprehensive academic mastery. The effect has been the academic deterioration that has frustrated millions of Americans now for so many decades.

To explain the deterioration, many theories of education came along relating poor academic performance to issues of sociology, self-esteem, self-concept, parental interest, learning disabilities, forms of intelligence, class size, and so on. But these descriptions have often complicated and neutralized rather than unified and empowered educational thinking. Educators can legitimately commit to so

many ways of defining needs and services that the demand for resources appears to be never-ending while systemic improvement in outcomes continues to elude us.

So my candidate for the central causal factor, a factor we can do something about, is this: The most basic thing that went wrong was the loss of a common methodology for achieving academic mastery with any student. Now, many if not most teachers don't know how to obtain mastery. All the state and national concern about educational standards is driven by that reality. We collectively don't know how to meet the standards we do have at any given time.

2. HOW TO CORRECT IT. The second step is "What's needed to correct this?" The answer is to set back in motion what was lost, "a methodology of teacher behaviors for achieving academic mastery in all students." We need to answer the question teachers always ask: "What do I do on Monday?" And in this step lies the particular contribution I would like to make. It's based on my involvement with classroom methods extending back to 1971, much research in the course of my Ph.D. study, and then intensive work since 1991 on what I call "the Assimilation Model" described in my book *Education Guaranteed* which is being published this fall by Minerva Press in London. Two major ideas are the basis of it.

The first idea is that "practice makes perfect." One researcher found that "arduous practice" is what most clearly separates top performers from all others. If your twelve year old wants to get better at basketball, what do you say to him or her? You say "Okay, practice!" Want to get better at a musical instrument? Then practice. At public speaking? Then practice. At sales? Then practice. I challenge you to think of anything in the world people get better at without practice! And I believe accordingly that practice is the silver bullet (that educational analysts have been saying for years does not exist) for getting better at learning.

My dictionary defines practice as "to do or perform repeatedly in order to

acquire a skill or training." Note the word "repeatedly." This means that there must be something to repeat, a behavior that has a defined boundary. You know that in a sport such as basketball, you select one skill at an elementary level and focus on it till its smoother, and you find yourself integrating it more and more automatically with other parts of skills. You practice the integrated set of the small pieces you worked on.

And some parallel exists between the classroom and what you yourself do when you're about to make a presentation to a legislative committee: **you practice explaining.** To practice, you draw together a basic cluster of ideas and then improve them while talking them out. It's not complicated. In explaining your ideas, you smooth them out, locate details in their context, and become fluid in approaching them from several perspectives. And this, I've found, is exactly what's needed by students from kindergarten through high school. Regardless of their age, attitude or intelligence; regardless of the subject's simplicity or complexity, **successive practice in explaining something without help leads to mastery of it.** To me this central fact is indisputable and is easily validated by anyone willing to try it out.

The chunk is usually a piece of learning presented by a teacher for ten to twenty minutes. So you have the chunk out in the open, up on the board, understood and organized. The question then is, "Will students retain it or not?" The answer is, "They will if they practice it." Students pair up and ask each other the question that identifies the cluster, and students explain that small chunk of learning first till its basically retained, and later till its fluid. Then with the next chunk also mastered, it's easy to integrate the two at a higher level of comprehension.

And in this gradual integration of chunks lies an important truth: that there is an unbroken continuum of knowledge between on one end a kindergartener giving a one-word answer to a question about light and on the other end a senior in high school giving a forty-minute explanation of Einstein's discoveries.

The price of moving up that continuum is teaching for accumulation of learning rather than for losing it with the recognition-based methods that are so common nowadays. To demonstrate what's possible if you accumulate, let me ask you to draw on your direct experience of children you know: how absorbent, how insightful, how eager, how interested they are. Does it seem reasonable to you to expect that these children you know--with learning content at the level of their ability--should be able to come out of every hour of instruction able to explain at least one minute's worth of knowledge learned in that hour? That one minute's worth should be retained and carried forward to integrate with later learning?

My observation of children tells me that that's an achievable goal. But if we can do even that, we get five minutes worth of learning in one day. At home the parent asks "What did you learn today?" and the child can talk interestingly and competently for five minutes without repeating herself. That doesn't sound like much perhaps, but with a teaching methodology focused on accumulation, it means 25 minutes learned that week--a significant accomplishment. Continuing that modest pace adds up to 100 minutes a month, and 900 minutes for the year which is 15 hours. Imagine your daughter in grade school in early June saying to you "Tomorrow I start my orals" and she can talk about her learning for two days without repeating herself.

You may think that that sounds too optimistic, so let's back it off: Hold on to the methodology of accumulation, but aim just for retaining a **single minute's learning per day**. Surely that isn't too much. But when June rolls around, that adds up to three hours of mastered, explainable knowledge! The crux of the problem, in other words, lies not in how much students are presented on any given day, how many pages they covered, but how much they save.

So the first foundation of learning is practice explaining in a manner designed to accumulate learning. The second principle is about synergism. You nourish student energy through doing several things at once that draw on different innate motives in students. I'll mention one motivational factor as a sample: The

most powerful ally we have for good education is what students think of each other, their intense desire to appear competent in ways their peers value.

In asking students to do questions and answers with each other in pairs, explaining to each other what was presented, we draw on this motive. Other motives: Students need to write down what they will practice so they own it more, have it organized in a way that makes clarity of task easy. They need to stand and perform chunks of their learning, which generates zest and peer feedback. They need objective and instant scoring of their learning achievement, which validates the effort they've just expended. They need self-checking and peer-checking on communication skills used, to raise the quality of their interactions. They need time spent acknowledging good feelings generated between them, so that they focus on positive feelings instead of on the putdowns and assorted cruelties that are too common. With such a mix of capabilities and motives that are enlisted, classes turn around quickly. All students start to learn, the mood in the classroom turns from negative to positive, students cooperate with the teacher and each other, they want to come to school, parents take more interest and are more easily enlisted in supporting this process, and disciplinary issues drop away.

Some characteristics of employing this approach are:

- It requires no extra money.
- It's completely under the control of the teacher.
- Teachers need no new skills. They just change the way time they use time in the classroom, so it's easy to learn.
- Objective results day by day are measured the same by everyone.
- Accountability by student, classroom, and school is crystal clear.

3. LEGISLATIVE INITIATIVE. So what can the legislature do about this? A legislator many years ago felt he was doing me a favor by diminishing my expectations about what you here can accomplish. He explained that the legislature's very nature is to be reactive rather than proactive. It fends off as best it can problems that are dumped on it, but is seldom in the position of being

able to foresee a need far ahead and forestall it with an initiative of some kind, just because of the way so many different forces are at work within it. And that was even at a time of an expanding rather than a contracting budget.

By now, however, we're no longer asking for foresight: The problem of educational results are upon us all, and anyone that sees a way to help needs to come forward.

My first suggestion is that you use your standard means at hand when there's a clear problem and you don't know what to do about it: you gather information. You have a pipeline of information. Needs come in through each of you and information flows out the other way. And when the legislature as a body agrees that a particular kind of information is important, that a major shift of direction may be needed, what it does is to hold hearings in districts around the state.

By the questions you ask in doing that, you generate public examination of a particular need and how that need is being met. I can easily envision a team of legislators and staff based in this committee that would go to localities around the state. You explain that you are checking out people's experience of educational issues that have policy and financing implications. The policy implication is the design of the educational delivery system of the state. The financing implication is that to the extent the design is inefficient or misdirected, the state wastes money it's spending now, it misdirects funds.

I'm well aware that over the years, many, many attempts have been made to do this. What I'm suggesting you do differently this time, however, is that you take up a zone that policymakers have till now all but ignored: **regaining a consistent classroom methodology resulting in academic mastery for all students.** With whatever else you wish to include, you look at these issues at least:

- . Practice: whether it is accomplished, how it is accomplished, its results?
- . Accountability: objective, instant scoring compared with standard model?

- . Performance: how can learning be performed, is this motivating?
- Organization: are students led to consistent arrangement of tools to make practice easy?
- . Communication: how are students learning to communicate, are the means effective, do they need to be better integrated into learning?
- . Attitude: does teacher-directed activity raise the emotional atmosphere in the classroom?

Certain effects can be expected from doing this: 1) Doing this may easily spark similar discussions in local boards, parent groups, and among school staff. 2) You return with a body of information to use as a lens for checking how the current state-designed educational structure gets results, and would have a basis for more detailed examination of policy changes. 3) You shed light on how you get more educational results for every dollar spent.

This concludes my prepared remarks. Thank you for your time and attention.

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