

## **New-century guideposts for tomorrow's teachers, trainers**

Bright teachers and trainers around the world are now preparing for the challenges of the 21st century.

And they're doing it simply: by combining lessons learned from early childhood, brain research, show business, advertising, television, music, dancing, the movies, sports, art, and electronic multimedia.

Above all they're restoring fun to the learning process.

At Simon Guggenheim School, 11-year-old students from the poorest district of Chicago, Illinois, have learned to speak fluent Spanish, through visualization, puppet shows and songs.<sup>1</sup>

In southeast Asia non-accountants are learning the principles of accountancy in a two-day accelerated-learning game.<sup>2</sup>

In Australia, secondary school students have appeared as French actors in their own videotape production— as a vital part of learning a three-year foreign-language course in eight weeks.<sup>3</sup>

In the tiny European State of Liechtenstein, one trainer has created over 240 games to teach virtually anything—from patent law to geography, history and physics.<sup>4</sup>

In Auckland, New Zealand, aspiring Polynesian company managers have learned the main principles of marketing in only 90 minutes— playing the Great Pacific Century Marketing Game, with pineapples, bananas and gambling dice.<sup>5</sup>

Intel, IBM, Apple Computers and Bell Atlantic in the U.S., The Burton Group and British Airways in the United Kingdom, Shell Oil and Air New Zealand are among the major companies using similar tech-

niques to slash staff training time and costs: from teaching German and Japanese to aircraft crews to training telephone linesmen—using music, relaxation, visualization and games.

In Scandinavia more than 30,000 teachers, parents, business trainers and managers have so far been through accelerated-learning workshops and seminars run by coauthor Vos.<sup>6</sup>

In New Zealand, all primary schools are using brightly colored puzzles and games to learn elementary mathematics. And managers from a wide range of businesses are learning in one day how to prepare a complete marketing plan with the Accelerated Planning Technique.<sup>7</sup>

At Cambridge College in Massachusetts, teachers are gaining a Masters Degree in education after only two semesters, including a five-week summer “intensive” that involves them directly in integrative accelerated learning techniques. Better still, they are seeing modeled in the classroom the techniques they’re absorbing to earn their degree in record time.<sup>8</sup>

Some of the new techniques go by a variety of names: suggestopedia, neuro linguistic programming and integrative accelerated learning. But the best all combine three things: they’re fun, fast and fulfilling. And the best involve relaxation, action, stimulation, emotion and enjoyment.

Says outstanding West Australian teacher and seminar leader Glenn Capelli: “Forget all the jargon. Forget all the big names. What we’re really coming to grips with can be summed up in two words: true learning.”<sup>9</sup>

Says British-born, Liechtenstein-based educational psychologist Tony Stockwell: “We now know that to learn anything fast and effectively you have to see it, hear it and feel it.”<sup>10</sup>

Later we’ll look at using the world as our classroom. But obviously much education will continue to revolve around schools, colleges and company training seminars.

And from our own research around the world, and practice in schools, colleges and business, all good training and educational programs involve six key principles. As a lifelong learner of any age, you’ll learn quicker, faster and easier if all six are organized brilliantly by a teacher who is an *involver*—not a *lecturer*—who, acting as a *facilitator*, orchestrates these factors:

1. The best learning “state”;

2. A presentation format that involves all your senses and is both relaxing, fun-filled, varied, fast-paced and stimulating;
3. Creative and critical thinking to aid “internal processing”;
- 4: “Activations” to access the material, with games, skits and plays, and plenty of opportunity to practice;
- 5: The transfer to real-life applications and connections;
- 6: Regular review and evaluation sessions; and with them opportunities to celebrate learning.

### **1. The best learning “state”**

Not surprisingly, each of those principles works best for an adult in almost the same way it works early in life, when learning develops quickly and easily through exploration and fun.

#### ***Orchestrating the environment***

Can you imagine a two-year-old youngster learning by sitting still on a classroom seat all day? Of course not. She learns through doing, testing, touching, smelling, swinging, talking, asking and experimenting. And she learns at a phenomenal pace.

She is highly suggestible, and absorbs information from everything that goes on around her—her total environment.

But once she gets past kindergarten, too often education starts to become boring. The fun disappears. In many classrooms around the world, youngsters are told to sit still, in straight rows, listening to the teacher and not exploring, discussing, questioning or participating.

Good teachers know that’s not the best way to learn. So they plan a classroom setting that facilitates easy learning. They use fresh flowers for scent and color. They cover the walls with colorful posters, highlighting all the main points of the course to be covered, in words and pictures—because it seems highly likely that most learning is subconscious.<sup>11</sup> Students absorb the lesson-content even without consciously thinking about it.

More and more teachers have music playing to establish the mood as students enter the classroom. Many use balloons and swinging mobiles to create an almost-party atmosphere.

“The total atmosphere must be nonthreatening and positively welcoming,”<sup>11</sup> says Mary Jane Gill, of Maryland, U.S.A., formerly in charge

of staff training for Bell Atlantic. Her techniques on one accelerated learning course cut training time by 42 percent, on another 57 percent. And the very first thing they did was change the atmosphere.

Top Swedish high school teacher Christer Gudmundsson agrees: “The atmosphere from the time your students enter the classroom must be thoroughly welcoming.”<sup>12</sup> And the late Charles Schmid, of San Francisco, California—a world pioneer in new teaching methods—found mood-setting music one of the major keys to achieving learning rates at least five times better than before. “And that applies everywhere, from preschool to a business seminar teaching computer technology.”<sup>13</sup>

Liechtenstein’s Stockwell—one of Europe’s leading new-style trainers in both schooling and business—says the importance of well-designed colorful posters cannot be overstressed. “Overhead projector slides, 35mm slides and flipcharts are fine,” he says, “but posters are miles better—and all should be up around the walls before any learning session begins. They’re peripheral stimuli. Their constant presence engraves their content into your memory, even when you’re not consciously aware of them.” He also says color psychology is important. “Red is a warning color; blue is cool; yellow is seen as the color of intelligence; green and brown have a pacifying effect and are warm and friendly. Never forget that effective posters make a strong impression on the long-term memory. They create memory pictures which can be called on when required although they were never consciously learned.”<sup>14</sup>

Stockwell even brings his own specially-designed chairs—ideal for relaxed learning—to seminars he runs in the United States.

It’s also the kind of lesson that all educational institutions can learn from the best businesses:

❑ The Seattle-based Nordstrom chain of clothing stores is used in dozens of management seminars as a model in profitable service—and it always has freshly-cut flowers in its customer changing rooms.

❑ Every international airline welcomes passengers on board with soothing, calming music—before presenting safety demonstrations.

❑ Visit Hawaii, the tourist capital of the mid-Pacific, on a package tour and you’ll soon slip into a welcoming vacation mood as you’re greeted with a lei of island flowers.

❑ Visit Disneyland or Disneyworld and you’re immediately struck by the cleanliness and total atmosphere.

Think of that the next time you visit a school or company seminar-room that persists with uncomfortable straight-backed wooden chairs and an atmosphere that is cold, lifeless and often colorless.

### Setting the right mood and getting students' attention

Canadian teachers Anne Forester and Margaret Reinhard, in their excellent book, *The Learners' Way*, talk of "creating a climate of delight" in every school classroom. They say variety, surprise, imagination and challenge are essential in creating that climate. "Surprise guests, mystery tours, field trips, spontaneous projects (old-fashioned days, pet displays, research initiated by the children) add richness to reading, writing and discussion. The production of plays and puppet shows is stimulated by the children's reading and is masterminded more and more fully by the children themselves.

"Your classroom will rarely be totally silent. Sharing and interaction are the vital components of a climate of delight. Discoveries, new learning, the sheer joy of accomplishment demand expression."

If that "climate of delight" sweeps over you as you enter a well-planned seminar room or classroom, it's the first step in setting the right mood for more effective learning.\*

### Early activity is vital

***The next step is activity:*** precisely what students or trainees are encouraged to *do*. The colorful setting, posters and mobiles will already have started to stimulate those who are mainly *visual learners*. The music will have "touched base" with the mainly *auditory learners*. And early activity makes the *kinesthetic learners* feel instantly comfortable. Interspersing all three learning styles also makes sure that all three levels of the brain are activated: our *thinking* brain, our *feeling* brain and our *doing* brain. But there are other good reasons for instant activity:

#### ***Jazzercise-type exercises to music encourage an increased flow of***

\* *Before starting any teacher-training session, co-author Vos spends at least an hour putting out props, covering the walls with colorful posters, and making sure that all audio-visual equipment is working—including the CD-player for the music that will welcome the audience. Co-author Dryden always urges participants to have a brain-jogging breakfast of bananas, kiwi fruit, oranges and other fresh fruit before spending time at one of his innovation seminars. Then, at the start of a seminar, after a warm-up exercise to music, he may throw out "brain-food" bananas to those who have forgotten breakfast.*

*oxygen to the brain*—and the brain runs largely on oxygen and glucose.

***Other exercises to music—such as simple juggling and left-foot/right hand, right foot/left-hand movements—can stimulate instant communication between the “right brain” and the “left-brain,”*** as we cover in more detail in chapter 11.

Others can loosen students up—mentally and physically: to help them relax. Canadian psychologist and astronomer Tom Wujec covers many in *Pumping Ions—Games and Exercises to Flex Your Mind*.

***Other activities can break the ice and help participants get to know each other—and the talents that are available to be tapped, inside and outside the specific setting.***

Minneapolis accelerated learning trainers Libyan Labiosa-Cassone and Philip Cassone often start international seminar sessions with a game of “Human Bingo” (see opposite). Participants have two minutes to meet as many people as possible.

***Other activities can put you in a positive mood.*** Australia’s Capelli often gets his learners to:

- \* Sit in pairs—with someone they’ve never met before—and spend 45 seconds recounting the most interesting aspect of their background; so that each person starts the session by focusing on projects that have been personally successful (reinforcing self-esteem).

- \* Massage each other’s neck and shoulder muscles to encourage relaxation.

- \* All sing a specially composed *Attitude song*—“The Big A in my life (students spell out each letter of A-T-T-I-T-U-D-E with their arms in time with the music).”<sup>15</sup>

Obviously the techniques will depend on whether you are taking a regular school class, running a specific-topic seminar, or introducing an international symposium.

Eric Jensen, author of *SuperTeaching* and co-founder of SuperCamp, believes two core elements affect learning: they are *state* and *strategy*. The third is obviously *content*. “State” creates the right mood for learning. “Strategy” denotes the style or method of presentation. “Content” is the subject. In every good lesson you have all three.

***But many traditional school systems ignore “state”. Yet it is the most critical of the three. The “door” must be open to learning before true learning can happen. And that “door” is an emotional one—the***

*“gatekeeper to learning”, part of being in a fully resourceful state.*

### **The right brain wavelength**

One of the main steps to achieve this is to get everyone working on the “right wavelength.” *And here probably the most ironic contradiction occurs: to learn faster you slow down the brain.* One of your brain’s “wavelengths” is obviously most efficient for deep-sleep. Another is more efficient for inspiration. And another, the one you’re most conscious of: the wideawake alertness of daily living. But many studies now reveal that a fourth brainwave is the most efficient “frequency” for easy, effective learning: what some call the alpha state.<sup>16</sup>

### **Bring on the music**

Dozens of research projects have found that music is a very efficient dial to tune into that alpha frequency.<sup>17</sup>

“The use of music for learning is certainly not new,” Californian accelerated-learning innovator Charles Schmid told us not long before his death. “We learned our alphabet to music—ABCD—EFG—HIJK—LMNOP. But in the last 25 years we’ve expanded our music knowledge tremendously. We’ve found out that in a special kind of relaxation, which music can induce, our brain is most open and receptive to incoming information. That type of relaxation is *not* getting ready to fall asleep. It’s a state of *relaxed alertness*—what we sometimes call *relaxed awareness*.”<sup>18</sup>

Much of our recent knowledge in this field has been built on the pioneering research started in the 1950s by Bulgarian psychiatrist and educator Georgi Lozanov. Lozanov set out to determine why some people have super-memories.

*After years of research, he concluded that we each have an “optimum learning state”. This occurs, he says, “where heartbeat, breath-rate and brainwaves are smoothly synchronized and the body is relaxed but the mind concentrated and ready to receive new information.”*<sup>19</sup>

In putting that research into practice, Lozanov achieved some amazing results, particularly in foreign-language learning. By the early 1960s Berlitz, then the world’s largest language-training school, promised students could learn 200 words after several days’ training—a total of 30 hours.

But Lozanov’s research reported Bulgarian students learning 1,200

words *a day* and remembering a remarkable 96.1 percent of them.<sup>20</sup>

Many others have built on his research. According to Schmid: “We now know that most people can achieve that ideal learning state fairly easily—and quickly. Deep breathing is one of the first keys. Music is the second—specific music with a certain beat that helps slow you down: anywhere from 50 to 70 beats a minute.”

The most common music to achieve that state comes from the baroque school of composers, in the 17th and early 18th centuries: the Italian Arcangelo Corelli, the Venician Antonio Vivaldi, France’s Francois Couperin and the Germans, Johann Sebastian Bach and George Frideric Handel.

***Lozanov found baroque music harmonizes the body and brain. In particular, it unlocks the emotional key to a super memory: the brain’s limbic system. This system not only processes emotions, it is the link between the conscious and subconscious brain.***

As Terry Wyler Webb and Douglas Webb put it brilliantly in *Accelerated Learning With Music: A Trainer’s Manual*: “Music is the interstate highway to the memory system.”<sup>21</sup>

Vivaldi’s *Four Seasons* is one of the best-known pieces of baroque music used to start the journey along that highway. It makes it easy to shut out other thoughts and visualize the seasons. Handel’s *Water Music* is also deeply soothing. And for teachers trained in new learning techniques, Johann Pachelbel’s *Canon in D* is a favorite to relieve tension.

Most of those teachers also use specially-prepared tapes to start each learning session—with soothing word-pictures to match the music and encourage relaxation. Tapes can be either self-made, if you’re competent in music, or bought. Their key first use in education is to put students into a relaxed, receptive state so they can focus on learning.

### **Break down the learning barriers**

Lozanov says there are three main barriers to learning: the *critical-logical* barrier (“School isn’t easy, so how can learning be fun and easy?”); the *intuitive-emotional* barrier (“I’m dumb, so I won’t be able to do that”); and the *critical-moral* barrier (“Studying is hard work—so I’d better keep my head down”). Understand where a student “is coming from” and you gain better rapport. Step into his world and you break resistance quickly, smoothly.

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### **Encourage personal goal-setting and learning outcomes**

Encourage students to set their own goals—and to plan their own future. If they know where they are going, then their path is focused. In our experience, *most people will over-achieve personal targets that they set themselves*—possibly the soundest principle in management.

In classroom settings, we both encourage the “Station WIIFM” game—to focus on “What’s In It For Me?” Not in a selfish sense, but to get participants, perhaps in pairs, to tell each other and teachers what they specifically hope to get from the session, the day or the year.

The way this is introduced is vital, especially in school. Many at-risk students get very angry with the traditional “You-will-learn-this today” introduction. Instead, good teachers invite students to set their own goals, right from the outset, and the outcomes they would like from the session.

Often students come with “hidden agendas”—and they don’t always “buy in” to the instructor’s agenda. The key is to make learning a partnership, where the instructor prepares a smorgasbord of possible “curriculum pieces” and the students get a big say in what they want out of it.

#### **Try visualizing your goal**

Visualizing is a powerful learning tool. An ineffective teacher might well say: “Don’t forget to study or you might do poorly in the upcoming test”—a negative reinforcer.

Eric Jensen suggests two better ways. One is to encourage students to visualize precisely how they would be using their new-found knowledge in the future. The other is to plant a positive thought that will encourage students to browse through their study-book looking for specific answers that might be used in the future.

We cannot stress this point too strongly: many teachers do not realize how damaging negative suggestions can be.

#### **Trigger the emotions**

Nor can we overstress that the emotional “limbic” part of the brain is the gateway to long-term memory, so all good teaching encourages warm emotions. This fuses what you have been learning into deep memory.

## **2. The keys to good presentation**

### ***Positivity and linking are the first ones***

All good presentations must be learner-centered and linked to stu-

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dents' own goals and existing knowledge. "The more you link, the more you learn." The flower is the perfect metaphor to link to positive imagery: "What does it take to make your flower grow?"

Another technique to guarantee involvement from the start is for the learners and the instructor to toss a squashy, brightly colored Koosh ball to volunteers to tell one main point they already know about a topic, and to draw Mind Maps covering the same points—from a pre-prepared map that lists the main "learning branches".

The sequence is designed to encourage the learners of every subject to start by identifying what they want to know, and then proceeding from what they already know—generally an amazing amount.

The entire presentation must also be positive. The facilitator should never suggest in any way that the session is anything but fun—no "now the break's over, let's get back to the hard work" talk.

Lozanov called his fast-learning process "suggestopedia," from "suggestology"—but that is an unfortunate translation into English. Says Stockwell: "The name is rather unusual, but if you see 'to suggest' in the sense of 'to propose' or 'to recommend' then it is easier to understand the relationship."<sup>22</sup>

As we've touched on in the previous chapter, the power of suggestion is paramount in learning: we all do best when we think we can do it; we fail if we expect to fail. Every adult has seen how infants' learning abilities soar in a favorable, positive atmosphere. All good Lozanov-style facilitators try to recreate the same kind of positive fun-filled atmosphere in the classroom. And like all good advertising copywriters, they go out of their way to stress how easy the project is. Japanese-language teachers may well use the "Itchy knee; sun, she go rock!" exercise we've covered on page 34.

Business-seminars may well start with the story of Ray Krok, the 52-year-old seller of milkshake machines, who first visited a Californian hamburger restaurant in 1952 and saw the start of an idea that ended up as McDonald's—an example to show how great projects can grow from very modest beginnings.

Lozanov stresses the important links between conscious and subconscious presentation. He believes each of us has an enormous reserve of brain power waiting to be tapped. He believes that by far the most important part of all learning is subconscious; and that good teachers remove the barriers to learning by making their presentations logical,

ethical, enjoyable and stress-free. Hence the importance of posters and “peripherals” as part of the total presentation.

### **Getting the big picture first**

A major presentation technique is to present “the big picture” first—to provide an overview, like the total jigsaw puzzle picture, so that all the later pieces can then fall into place. Again, posters or other classroom peripherals may well present the big picture—so it’s always there as a focusing point.

Telling a story is also a great preview technique.

And field trips are highly recommended at the start of any study—to see the big picture in action.

Drawing Mind Maps at the start of study, including all the main “limbs”, allows students to draw in the smaller branches later.

### **Involve all the senses**

All good presentations also appeal to all individual learning styles.

The most neglected learning style in nearly every school system is kinesthetic—or movement. Every good learning experience has plenty of verbal stimulation, plenty of music, plenty of visuals—but the really great teachers make sure to have plenty of action, plenty of participation, plenty of movement. Even though students may be visual learners, everyone embeds information by doing.

### **Step out of the lecturing role**

This is probably the major personal change required in teaching styles. All the best “teachers” are activators, facilitators, coaches, motivators, orchestrators.

### **Always orchestrate “non-conscious” processing**

Since Lozanov practitioners say most learning is “subconscious”, the room setting, posters, body language, tone of speech and positive attitude all are vital parts of the learning process.

### **Plenty of role playing and “identities”**

Lozanov teachers also encourage students to “act the part”. There are few faster ways to learn science than to act out the roles of famous scientists; or to learn history by putting yourself in the historical setting.

### **Organize plenty of “state changes”**

The best teachers organize plenty of “state changes” so that students

switch from singing, to action, to talking, to viewing, to rhyme, to Mind Mapping, to group discussions. This has a two-fold purpose:

1. It reinforces the information in all learning styles; and
2. It breaks up the lesson into chunks for easy learning.

Both have a major bearing on how well the information is absorbed. For example, it is now well proven that, in any presentation, students can generally remember easiest the information at the start, the end and any “outstanding” examples that gripped their imagination. Regular “state changes” provide the opportunity for many more “firsts”, “lasts” and graphic examples.

### **Make learning-how-to-learn a key part of every course**

This is probably the main overall desired result from all learning. So the techniques should be blended into all activities.

### **The Lozanov “concerts”**

Possibly Lozanov’s greatest contribution to education has again been in the sphere of music: not only to relax your mind and put it into a highly receptive state—but to use music to float new information into your amazing memory system.

Lozanov recommends two *concerts*. And again, Charles Schmid has summarized the theory and practice neatly: “If, say, a class is learning a foreign language, as the first step the teacher sets out the new vocabulary in the form of a play, and with an overview of it in pictures. The student sits there taking a ‘mental movie’ of it. Immediately following this comes the first concert—what Lozanov called the *active concert*. With the student looking at the text, the teacher turns on some selected music, and he reads the foreign language in time to the music. He deliberately acts out the words dramatically in time to the music.

“Now there’s no magic to this; it’s precisely why it is easier to learn the lyrics of a song, rather than remember all the words on a page of notes. The music is somehow a carrier and the teacher surfs along with the music—almost like catching a wave.”<sup>23</sup>

Lozanov’s second learning phase is called a *passive concert*.

Charles Schmid again: “The second concert follows immediately after the first. And here we use very specific slow baroque music—around 60 beats to the minute—very precise. And while the first reading of the language was very dramatic, the second is in a more natural intonation. Now the students are invited to close their eyes if they want—

although they don't have to. They put the text aside, and imagine, say, that they are in a theater in the country they're studying, and somebody is acting a story in the background. Generally this will be the last part of a particular language session—and the students will then go home—and probably skim through their foreign-language 'play' just before they go to sleep." Overnight the subconscious goes to work—and the seemingly automatic start of the transfer to long-term memory storage. Lozanov fans claim the use of music in this way can accomplish 60 percent of learning in 5 percent of the time.<sup>24</sup>

We hasten to add that even great Lozanov enthusiasts do not recommend using his full "concert" technique in every session. Even in something as clearly defined as learning a foreign language, perhaps only three "concert" sessions might be held in a week. But all the other key principles of learning would be used in other sessions.

### **3. Thinking about it, and deep memory storage**

Education is, of course, not only about absorbing new information. It involves thinking about it and storing it into deep memory as well.

Learning how to think is a major part of every educational program, and good facilitators use "thinking games" and "mind games" as part of synthesizing information—as well as providing "state changes". In business seminars we've found it best to introduce this by fun projects: designing "a golf ball that can't get lost" or playing the "What if?" game on subjects well divorced from the activities of each group.

For deep memory storage, Lozanov's active and passive concerts are tops. They are designed to access the long-term memory system in order to link new information subconsciously with data already stored.

### **4. Activate to draw out the learning**

Storing information is also only one part of the learning process. The information also has to be accessed. So the next step is "activation".

And here games, skits, discussions and plays can all be used to "activate" the memory-banks—and reinforce the learning pathways.

Again, this needn't make more work for the teacher. The opposite, in fact. Students love to organize their own plays, presentations, debates and games. Give them the chance to present their new-found information to the rest of the class or group—any way they prefer.

Schmid explains a typical activation session, after French-language students have slept on a concert-session: “The next morning, or within 48 hours, the students come in; they haven’t said a word of French yet—or at least not in the new vocabulary. Now comes three or four hours of what we call activation.

“Now we play games with the vocabulary. We’re feeding their brains in different ways. We’ve already done it consciously in showing them the words and pictures of their French play. Then we’ve fed it into their subconscious, with the aid of music. And now they’re activating their brains in different ways to make sure it’s stored. And I tell you: now I wouldn’t teach in any other way”

Schmid, who unfortunately died not long after our interview, had degrees in music, psychology and foreign language instruction. He taught at the University of Texas and New York University for many years with traditional methods before “getting hooked” on the new techniques.

“I started to teach French and German and sometimes Italian with these new techniques; I wanted to see if the system worked, if it really was all it was cracked up to be. And I was amazed. I would teach students in a three and a half hour class. I’d give them 400 words of French, say, the first day. And by the end of the third day they were able to repeat them in forms of conversation. And that had never happened before.

“Previously at the university, if I gave students 25 words a day in the old way, they’d be lucky to remember ten the next day. I was convinced.

“In fact, when I first started using the techniques myself, I started dreaming in the language after about the third day. And I had never had that feedback before.”

*Schmid’s experience left him no doubt as to the benefits of the new learning methods: “I would say the speedup in the learning process is anywhere from five to 20 times—maybe 25 times—over what it was in traditional methods. But it’s not only the acceleration; it’s the quality of learning that goes on. And the feedback. They say: ‘This is fun. Why didn’t I learn this way in high school?’*

“Recently at a New England telephone company students were using these methods to study optic fibers and some technical telecommunications work. The trainees were sitting on the floor, playing with wooden blocks, fitting them together and understanding what goes on in an optic fiber. The trainer said: ‘OK, it’s time for a break.’ And the trainees said:

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‘You take a break; we’re having fun; we’re learning; and we’re getting this finally.’ That’s what I mean. It works and it’s fun.”

## 5. Apply it

In our view, the real test of learning is not a written examination through multiple-choice questions. The key is to use the learning and apply it to purposeful situations, preferably real-life.

The real test of a French course is how well you can speak French. The real test of a sales course is how well you can sell.

You learn to play a piano by playing a piano, you learn to type by typing, to ride a bike by riding a bike, to speak in public by speaking in public. So the best teachers and business seminar organizers plan plenty of action sessions to back up the theory so students can purposefully use and apply the learning.

### Turn your students into teachers

As in the activation phase, it makes sound sense to have students work in pairs or teams, with a free hand to prepare their own presentations of main points. Groups in a teacher-training class, for example, may each be asked to crystallize a specific aspect of educational psychology. And more and more schools are using the “buddy” system, where an older or more qualified student helps another, and both benefit.

### Encourage Mind Mapping

We’ve already covered the principles of this and suggested you use it to preview the learning, but it is also a remarkable way to review and make notes. *It really is what it says: a map that records main points in the same way the brain stores information—like branches on a tree.* It’s also a major tool in the next process.

## 6. Review, evaluate and celebrate

Even highly efficient learners will not always be conscious of whether they “know what they know”. One way to bring the learner to that awareness is through a quick Koosh-ball throw at the end of a lesson. This will jog students’ memories of all the important learnings of the day. Another way is a “passive concert” review, which also covers all the points handled.

And then comes one of the most crucial steps: the self-evaluation. This is where a student truly “digs within” to uncover those precious gems

of the day. Self-evaluation is a tool for higher thinking: reflecting, analyzing, synthesizing, then judging.

Peer-evaluation and instructor-evaluation are also important parts in culminating a lesson, but the most important is self-evaluation.

Another way to review is to skim over your Mind Maps or “highlighted” notes, or both:

- \* Before you go to sleep on the day you’ve been studying;
- \* The next morning;
- \* A week later;
- \* A month later;
- \* And just before you need to use it—or before an exam.

If you’re on a one-week course with an examination at the end, spend at least 15 minutes a night on that day’s Mind Map and highlights, and at least five minutes on each of the previous days.

Or if you’re writing an article or even a book, it’s amazing how much you can recall by skimming your Mind Maps and underlined books.

And always remember to celebrate every victory—just as any sporting achiever would celebrate. Praise the entire class effort, and whenever possible turn that praise into a recap of the main points learned.

### **Putting it all together**

And how does all this theory work in practice? Let’s look at four examples: an entire school that has switched to integrative accelerated learning techniques; a high school class that has done the same for one subject; a special foreign language project in the army; and a teacher who’s made the change, with outstanding results.

### **The Simon Guggenheim School experiment**

The first is an example of the great potential changes that can come from innovative schooling. It is also a sobering example of how that potential cannot be fully realized unless the entire social climate of a community changes, too.

Simon Guggenheim K-8 School is in one of the poorest districts of Chicago, Illinois. Nearly all families are African-American, 85 percent are officially below the poverty line, with annual incomes between \$9,000 and \$11,000 and a large proportion live on social welfare.

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*Fifteen years ago their children's futures were bleak. Their school had one of the worst scholastic records in all the United States. Today a great deal has changed. Guggenheim School is now regarded as a model on how school disasters can be turned into success.*

When Michael Alexander first arrived there as principal in 1984, the school was a failure and in danger of being shut down by the local Board of Education. Alexander's first decision was to upgrade the morale and skills of a demoralized staff. Using some State Title 1 funds, for schools with special needs, he offered all staff members a 30-hour retraining course with Peter Kline, the man he now describes as "the genial dynamo of integrative learning". Half the teachers went at one time, while substitutes filled their places; then the other half.

"To put it mildly," Alexander recalls, "they were sceptical at first. We agreed there would be no pressure on them to use the principles and techniques of integrative accelerated learning. It was up to them to apply what they found valuable."<sup>25</sup> The rest, he says, is pleasant history.

Walk into one class, and you'll find 11-year-olds learning Spanish—at their own request—by taking part in puppet shows and singing to music. Walk into another and 13-year-olds will be learning American history by actually taking over the roles of Abraham Lincoln or Thomas Jefferson. Walk into the computer room and parents and students will be learning together. Go into another and a happy bunch of young African-Americans are learning about hygiene through a "rap session". The corridors are a blaze of colorful posters. Photos of black achievers adorn the walls of many classrooms.

Ask Alexander what's so unusual about the school, and his reply is direct: "This school is a fun place to be—and it's a place where people throw aside all the roles that are generally germane to education—where teachers act one way and students act another. Everybody is now focused on creating an atmosphere of joy and learning for children—and people move in any role that's necessary in order to facilitate that."<sup>26</sup>

That change doesn't end in the classroom. The school runs its own breakfast and lunch program—with meals high in nutrition. At its simplest, you can't learn if you're hungry.

"Students walk through the hall now, very polite, very respectful," says Alexander. "Overhearing children on the playground, they talk about their school becoming the school of the future. 'We use accelerated learning. We're gonna be the most sophisticated school in the city with

computer technology. We have Spanish in our school. We have tai chi in our school.' They tell their friends, and they're very excited about it."

So are the parents. An average of 20 turn up each day to help out.

What about the results?

"Academically, the performance changed dramatically," says Alexander. "The year prior to our teachers being trained in integrative, accelerated learning techniques, only 27 percent of our kids were making a year's growth in a year's instruction. A year subsequent to that, the rate went up to 54 percent, and in math it went to 58 percent."\*

Dr. Larry Martel, President of Interlearn Integrative Learning Systems in Hilton Head, South Carolina, surveyed the results after that year. And he reported a 103 percent increase in reading scores and an 83 percent increase in math and reading combined. In two years Guggenheim went from being at the bottom of Chicago's Subdistrict 16 schools to second from the top.

It would be great to report that its efforts have completely turned around a whole community. But the district still has one of the highest homicide rates in the country. The poverty still remains. For those students who stay on at Guggenheim, the overall achievements remain high. But many transient students are there for too short a time to have other than a glimpse of their true potential. And the surrounding neighborhood bears daily testimony to America's urgent need for the same kind of innovative approaches to social problems that Guggenheim has brought to schooling.

### **Fluent French in eight weeks**

For a class demonstration of accelerated learning in action, an excellent example comes from Beverley Hills Girls' High School in Sydney, Australia.

In the early 1990s they introduced an accelerated learning course that successfully compressed a three-year French course into eight weeks. Says teacher Sylvia Skavounos: "I was amazed. We'd had a standard French course for two-thirds of a year before we started. Yet in the two weeks after we began, the students had learned at least 200 new words, and they could say them fluently"—much better in two weeks than the previous several months.<sup>27</sup> The course they chose was produced by

*\* Michael Alexander is no longer principal at Guggenheim, but new principal Nancy Ellis has continued with an expanded program.*

Accelerated Learning Systems of England, mainly for self-help learning. It also comes with a teacher kit for classroom use. When a crew from Australia's Channel 7 television network visited the Beverley Hills French class, they found students doing exactly what Charles Schmid has described: starting with relaxation exercises; clearing their mind for the session to come; learning through *active* and *passive* concerts; reactivating their learning through games and even acting out and producing their own videotape.

TV brought in Jean-Philippe de Voucoux, an expert from Alliance Francais, to check progress. And he was amazed "at how quickly they were able to speak without reading" and how easy it was to have a conversation with them.

As Channel 7 summed up: it's an experiment that could have turned Australia's education system "on its head". Unfortunately the rival Channel Nine Network later followed up with a program highly critical of some claims for "accelerated learning", and the New South Wales Government reacted by stopping many of these new methods.

### **The army learns a foreign language in record time**

In any event, a journalistic story is not scientific evidence. For that we turn in brief to the American army and one of the best users of the new teaching techniques, Professor Freeman Lynn Dhority, of Boston.

Dr. Dhority was already a highly successful German teacher before he studied the *suggestopedia* method with Lozanov. He then had the opportunity of testing the method and comparing it with other measured results using standard-style German teaching. All materials for the course were prepared thoroughly in advance according to Lozanov guidelines: "peripherals", including posters, music, games, songs, activities and scripts. And because of Dr. Dhority's academic training, he was able to ensure that the results could be documented.

His "control group" of 11 students studied basic German, using accelerated learning techniques, for 108 hours over three and a half weeks (18 days) at Fort Devens army base. The results were then compared with another group of 34 army students, not taught by Dr. Dhority, learning basic German under regular "audio drill" methods over a period of 360 hours, spread over 12 weeks.

The comparative results recorded levels of "listening, comprehension, reading and speaking". And they were then checked by Dr. Lyelle

Palmer, Professor of Education at Winona State University, Minnesota. They disclosed that only 29 percent of the “regular course” students reached the required “level one” of basic German in the 360 hours, while 73 percent achieved the required level of “listening understanding” and 64 percent the required level of reading ability in the 120 hours.

Dr. Palmer recorded the results statistically in a joint paper headed: *The 661% Solution: A statistical evaluation of the extraordinary effectiveness of Lynn Dhority's U.S. Army accelerated learning German class.*<sup>28</sup> And for us he summed them up even more succinctly: “Lynn Dhority achieved more than twice the results in less than one-third the time. Statistically, that was a 661 percent increase.”<sup>29</sup> Major savings were also achieved, of course, in instructor time and expenses, daily expenses for trainees, and time away from the job.

### **An accelerated integrative learning teacher**

For a glimpse at a new-style teacher in action, visit a Leo Wood's chemistry class at Tempe High School in Arizona, at the start of a typical year. Walk into the room and you're struck first by the paintings and photographs: a Monet, a mountain scene, portraits of Albert Einstein and Linus Pauling, and graphics on chemistry and the miracle of life. From the ceiling hang posters and models of molecules and polyatomic ions. Relaxing baroque music fills the room. The classroom is colorful, interesting and relaxing.

Wood uses techniques brought to the United States by another Bulgarian, Dr. Ivan Barzakov, and perfected with his actress partner Pamela Rand. Like Lozanov, Barzakov experimented early with yoga and relaxation techniques. Later he was the star teacher at Lozanov's experimental school in Sophia before fleeing Bulgaria. Since then he and Rand have built on Lozanov's basic principles, making great use of many types of music, visual art and metaphorical stories. In 1978, with a group of teachers and psychologists, they formed the Barzak Educational Institute in Novata, California. The Barzakov team have since trained more than 10,000 people in 17 countries.

Ivan Barzakov calls his method OptimaLearning. While Lozanov used his techniques mainly for foreign language-learning, Barzakov applies his principles to any subject. Effectively he combines Lozanov's “two concerts” into one. And he's developed a careful selection of music tapes which are used not just for learning and memory, but for imagination, creativity, problem solving and decision making. He carefully

blends different types of music together for contrast, “because variety stimulates our minds and keeps us alert”.<sup>30</sup> He also changes the “texture” of the music, from violin to flute through to mandolin and clavichord and piano. The result is a unique sequence that brings serenity, relaxation and anticipation. Taking part in a class with OptimaLearning music is very much like sitting through a classic movie, where the music is a powerful subconscious carrier of the total theme, and the visual art blends with it.

In a Leo Wood chemistry class, you’ll very soon be caught up in that same type of drama. As part of a typical demonstration, the teacher may switch the lights off, turn up a special tape for creativity and imagination, and start mixing chemicals together in a test tube. As the suspense mounts with the music, sparks of light begin popping in the test tube, one at a time. Wood begins talking about light and life and their interaction. The popping becomes more rapid and the sparks much brighter. The teacher introduces the theme: “Life is a miracle, and you and I are part of that miracle.” Wood walks to a demonstration table, pours the test tube contents into a large beaker, and says: “We will learn how miraculous life really is.” A big burst of fire flashes from a beaker and into the test tube as the music reaches a climax. The lights go on, the music stops, and the students are silently processing what has just happened.

Says Wood: “The theme for the year has been introduced, properties of three compounds and density are discussed, and the relationship and interaction of light and life have been demonstrated and revealed—all in about 15 minutes.”<sup>31</sup>

Then he may take the students outside, to stand facing the sun with their eyes closed, before returning to class to write their impressions as Debussy music plays in the background.

Then in the teacher’s finale the students learn of the fusion reaction that occurs on the surface of the sun. But not as a lecture: they actually become the hydrogen atoms as their bodies become a circle, and their fists are brought together in a clasping position to indicate the fusion of the nuclei.

“We have a little oral quiz at the end of the class,” says Wood, “and everyone always gets 100 percent.” And in later examinations, the results are spectacular. ***Before introducing these accelerated learning techniques, 52 percent of Tempe chemistry students achieved A, B and C grades. With the new methods: 93 percent.***<sup>32</sup>

A full selection of Barzakov music tapes are now readily available.

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## What's held up the big breakthroughs?

Given the proven results of the new techniques, in many ways they have been slow to spread. This is probably as much a result of the “cold war” atmosphere of the 1960s and 70s as it is of any conservatism in the educational establishment. Early incorrect reports of “sleep learning” in the then Communist bloc countries also conjured up illusions of “brain-washing”.

Lozanov's accelerated learning techniques made their biggest early impact in foreign-language training for adults. The reasons were simple:

1. His first published international results were in this field.
2. Probably more than in any other subject, the spectacular results were easy to assess. People with no knowledge of another language were obviously learning much faster and more effectively.

Sheila Ostrander and Lynn Schroeder publicized some of these feats early in the 1970s with their book *Psychic Discoveries Behind the Iron Curtain*. And their use of the word “psychic” probably turned-off as many people as “Iron Curtain”. Soon afterwards, Lyall Watson answered much of the scepticism with *Supernature*. In it he mounted fact after fact to prove that what many people regard as “supernatural” is really “supernature;” that we all have hidden reserves of talent.<sup>33</sup>

In North America, some of the first interest came from Canada, with its concentration on bilingual education. Dr. Jane Bancroft, Associate Professor of French at the University of Toronto, brought Lozanov to Canada in 1971. And a year later Dr. Donald Schuster, Professor of Psychology at Iowa State University, and a colleague, Ray Benitez-Bordon of Des Moines, began some of the first United States experiments. By 1975 Benitez-Bordon was reporting classes learning more than a full year's Spanish in 10 days—with four hours' study a day.<sup>34</sup>

But many of the early American results did not live up to the pre-publicity, largely because of misunderstanding over the role of music in the process. Many early enthusiasts thought any relaxing music would do. And the cause of good learning was not helped by many early spurious claims of spectacular results.

Fortunately the early development of the techniques coincided with some major breakthroughs in brain-research, as we've covered earlier.

They have also been accompanied by other research into the vital importance of individual learning styles.