

Transcript of speeches given at the release of *Vital Impressions: The KPM Approach to Children* by Dr. Gary Borich, Professor of Educational Psychology at the University of Texas, October 26th 2003, at the KPM Institute, Austin, Texas, USA:

BETTY SUE FLOWERS:

I think one of the most important parts of this program will be the time we have to go next door and talk with each other, so for those of you who are from San Francisco and other parts of the country or don't know about the schools, either here or in India, you might want to connect with someone who has. So can I now ask those who have been to, observed, or have some kind of personal experiences with the school here or in India, to stand up and turn around so we can see who you are, and buttonhole you when we get next door? Ok, everybody has seen somebody. Good, good.

My connection to this school is through a story that I heard many years ago, and it stuck in my heart so closely that I've been compelled to have some, however small, connection with the school and the Institute, and the school in India, ever since, even though I've never been to India and seen the school. And the story was this – and you know, I can't even vouch for the truth of the story; it may have become a myth by this time, who knows, but here is the story, and it really, really stuck in my heart.

The story was that there was a school in India that the children loved so much that when it was vacation time, they came to the school and they held on to the fence and wanted to come in. Story one. Story two: there was a school in India where when the children got off the bus to go to school, the teachers had lined up little red tricycles and they could ride on these tricycles all day if they wanted to.

There was a third aspect, and that was that when people first came to this school there was a slight little sense of, shall I say, dismay, because it looked so chaotic, but when you look more closely the kids are having fun, and then when you look even more deeply, they are learning, they're really learning. That, to me, was both revolutionary and absolutely natural. It was as if to say, well sure, isn't that how it's supposed to be? Why not? I'm sure I wasn't the only one who said to the people running the school, "You know, I keep hearing these stories that are so hard to believe," but I had to believe them because of the people who were telling it to me, I had to believe them because of those people.

Something that's so hard to believe needed to be studied by an outside person who had degrees, who could really do the research, who was utterly objective, maybe even skeptical, that would be even better. And if you could open up the schools to that kind of research, and they withstood the rigors, then you had a real story to tell that didn't just appeal to the heart, but to the minds of educators, and that's what was really important.

I think that the Institute is very lucky to have found Gary, who is Professor of Educational Psychology at the University of Texas at Austin, an internationally recognized authority on measurement and assessment and evaluation, which is exactly

what was needed. He's written so many books about education. He's consulted in Europe and Asia and here in the United States, and I just think that the Institute and the school are absolutely lucky to have him.

This book, *Vital Impressions: The KPM Approach to Children*, is the record of his research. It's more, though, than a research record. It contains the stories of many children who blossomed under this Approach. Individual stories. Take, for example, the story of Michelle, which is on page 100. I kind of identify with this story. She spent her first three years in public school very unhappily, because of math pressure. She had to perform on math tests quickly, and she could do it, but she was slower, because she had to go through a reasoning process that didn't produce the answers in the required time frame. I think many of you can identify with this particular issue. So of course, she hated math – who wouldn't?

She came to the school, and for the first year didn't even touch math, avoided math. Now, imagine you're an educator in school, someone's avoiding math for a whole year, you would get worried. You would get worried! Another year she avoids it; you would get even more worried. But eventually she discovered, by listening to her peers, they were ahead of her in this, that in fact she wanted to learn, and then she went to her teacher and asked the teacher for harder math problems, and on her own began to focus for more than an hour at a time. She began to do a lot of math catching up, and that's how it happened. And at one point she was heard to say – and I want to quote from the story Gary tells – “One day she remarked ‘Math is easy. I can't believe I used to cry over this stuff.’ Her confidence bloomed. Since she had never been forced to do math, the accomplishment was entirely hers.”

What I think accounts for this result is the bedrock of the philosophy. For me, it's one thing, and that is, trust in the innate desire of children to learn. We all say, yes, children are by nature learners, yes, they really do want to learn. But somehow when you've seen the institutions we've set up, we don't really trust that, because we think we need to make them learn. And in making them learn, we take the joy out of it.

I would say this is radical. This level of trust in children's innate curiosity is absolutely radical. And it's the bedrock of this Approach. That, and the relationship, the human relationship, between the teachers and the students. It's so natural, it's so obvious, and in some ways it's so logical, and it's so radical.

There's a lot to be learned from this experiment, which is no more an experiment because the children in India have now gone through. They've reached the eighteen-year mark where they are tested against the outsiders. That's what parents are so afraid of: ‘Yes, I'd love for my child to be happy, but even more, they need to succeed, because if they don't succeed in the real world, I haven't done my job...’ Now, the students in India have reached eighteen, because the school has been going on long enough, and they have competed very well in standardized tests in relation to others, and so their options are open, doors are not closed to them; in fact, they do very well, indeed.

So that hurdle, also, has been crossed, and I honor those brave parents who trusted that the end result would also in the world outside, the real world, also be good.

So, I think this experiment has a lot to teach the world, not just in education, but throughout our institutions: that if we really think about the fundamental basis of trust, on which this philosophy rests, that we could come up with new ways of doing things that are one and the same, and absolutely radical because they are so commonsense.

I want to ask Gary, now, to stand up and talk about his own story, and to really give the information and lecture that we're here to receive. I just really feel very honored that I can introduce him, because I think your research has been a wonderful, wonderful introduction to people outside this work who otherwise would never know it. Thank you.

GARY BORICH:

Thank you, Betty Sue, for a very nice introduction. Also, thanks to my grandson for being here today, also my wife and daughter and her husband, and my son and his wife.

This is a story about myself as much as it is a story about the KPM Approach to Children. It's been a long time since I began working on this, almost four to five years, and the way it happened was a very strange event. I was sitting in my office one day and in came Sheridan Wilson and Suzanne Buckley and Caroline Kirby, all from the school in Malakkara, India. They explained to me that they had this school that they needed someone to evaluate, but they were looking for someone who knew nothing about it. I said, well, that's pretty right, because I've never been to India, and in fact I didn't even know, at that time, that there was a branch school here in Austin.

I was a little curious, and I said, what is this school like? What they described to me, my first impression, was this kind of controlled chaos. Students having fun, running around... they did also say, learning a lot. I asked, "What is the school like?" They said, "Well, it's a little different. We don't have classrooms, at least not classrooms in which teachers stand up and present material in kind of a rote way, for students to memorize and give back on some test. There are classrooms — which have various kinds of demonstrations in them, and the teachers are expected to provide those demonstrations — that students can wander in and out of, and participate in various kinds of academic ways." And I said, "What about the teachers; who are they?" And they said, "Well, we don't actually have teachers, we have teachers that we call resources, teachers as a resource." And I kind of got a picture of a rather innovative approach to education which, in all my years of working in the public schools, I had nothing to associate it with.

And they said, "Would you like to come and evaluate this over a two-year period?" Well, that's quite a commitment, and I don't know. They didn't know at the time, but among my colleagues I'm kind of referred to as the junkyard dog of assessment,

which means, as Betty Sue said, that I'm pretty skeptical. I've been around for thirty years, and everybody wants an evaluation of their new and innovative approach, and to tell you the truth, very few live up to the claims that people have for them. And I've become quite critical and skeptical about it, and this was certainly one of those situations.

As we talked a little bit more, I started to realize what kind of a commitment this would be on my part, and was also a little bit wary as to whether anything was going to come of this, for me professionally, or for them in terms of the school. I happened to be reading a little at the time about China, and in this reading was a discussion of the word "crisis," and I was having a little bit of a crisis ... in talking to my wife, "Well, do I really want to do this?" They say in Chinese, the word "crisis" is made up of two words, one is danger, and the other is opportunity, and for the Chinese it's a dangerous opportunity. I said, well, that's exactly what I'm facing...one, a danger in that I could go there and this is just one of those approaches that don't pan out, and I spend a lot of time and commitment doing that, and opportunity in the sense that I could really learn something that I could never have seen in the Western world here, because this is described as innovative and so different. As I said, even the staunchest advocates of alternative education would be quite amazed at what this school is about.

Well, at any rate, I had some discussion in the next six to nine months with Caroline Kirby in Malakkara, who was really there to manage my work should I decide to do this in India, and we'd go back and forth with emails. I thought, well, I've really got to cut the odds down a little bit about the danger part of this, and I said to Caroline, what if I came over there and found out in a couple of days' wandering around and following the kids, going to school, and I found out that there really wasn't much here? Is that ok? Could we call it quits and we're still friends? She emailed back, yeah, it's ok. And I said ok with that, and then I did something really quite bold, I was thinking well, they're going to expect some sort of report, here, and I emailed back and said, how long do you expect this report to be? And she said, whatever you would like. And the bold part was, I said well, I'm really going to make it easy on myself, I said would you settle for fifteen pages? In my mind, I said I could write that in the plane coming home, and call it quits. Well, I'm sure eyebrows went up, but she was very polite, and said fifteen pages would be ok. So, I said ok, that's the clincher, I'll go and see what this place is like.

I don't know if any of you have been to India, but you get on a plane in Austin, Texas, and you go to San Francisco, and you wait in the airport for three to four hours there, then you get on another airplane that takes you to Hong Kong, that trip is thirteen hours, then you wait in Hong Kong for awhile, then you get on another plane and go to Singapore, and there you have to sit around overnight, and then you take another plane to Madras, India, and then you take another plane to Trivandrum, India, and then someone comes, drives three and a half hours to pick you up in a car, and you finally get there, and if you're still standing and alive, you're available to be observant.

Over the period of these two years, I did get quite used to the trip and actually began to like it. India is a beautiful place, particularly the state of Kerala, where this school is, and the culture is, I think, a beautiful culture, and all sorts of opportunities popped up that I never realized.

My job there was to find out what makes this school tick, to what extent are these claims valid, and I began to observe, first of all just to kind of get my feet on the ground, follow children around in the elementary school, which there is called the Lower Primary, the Upper Primary which is our higher elementary grades, and the High School, so there were three different facilities, at that time.

Some strange things started happening to me. I was quite cynical, I would say...skeptical, maybe, to be polite about it. As I began to observe more and more, I was trying to piece together how does this place work? Apparently the test scores that Betty Sue referred to were very good at the end of fifteen years of being in this school, they competed well at a national level in India, so in essence I looked around more and more to see what was happening, and the only thing I could come up with during that first visit was “life-giving experiences.”

I had never thought of that word in my entire life, and I don't know where it came from, but this place seemed to be filled with life-giving experiences. As Betty Sue referred to as happiness, in a way... sometimes we think of school — you can't learn if you're happy, and if you're happy you're not learning— but both seemed to be happening here, at the same time. I said, what do I call it, just to help me conceptualize this? Life-giving experiences, and so help me, for fifty-five years I had not thought of this notion, but...what's a life-giving experience from my point of view?

All of a sudden popped into my mind something that happened to me the first day I was in kindergarten. I was very happy to go to school, and looked forward to it: that's where the big guys go, and I would be an adult in my own mind, and finally there was the day. The teacher said, if any of you have any building material at home that we can build with, play with here, please bring it to school. I went home, and at that time we had just built bedrooms up in the attic for my sister, myself, and my brother, and the carpenters left what are called cutoffs. These are odd little pieces of wood, meaningless odd shapes, you can't do anything with them, and they were there and I said, well, this would be excellent stuff to play with. I kind of practiced playing with it, because I wanted to go show my new peers what this would look like, and I remember making a choo-choo train, and I made a pyramid, and I made a house out of it, and in fact I played with it well into the night when I should have been in bed — with a flashlight, looking at this stuff and trying to get my act together for the next morning.

I put them all in a bag, brought them to the class, and went to the teacher, very proud, because I felt sure I had the best building materials of anybody else. I emptied the bag on the floor and said, “Here's the materials that I brought.” The teacher immediately just looked at them, and said, “This isn't really what I meant by building materials, this isn't going to work, would you kindly pick them up, put them back in the bag and take them home.” Well, to someone observing, this was probably not more than a few seconds of interchange, and they probably wouldn't have noticed much, but the truth of the matter is, I was devastated. I thought for a moment to interrupt the teacher and say, “Let me explain to you all the things that can be made out of this, and let me demonstrate it to my classmates,” and then clearly I would gain your admiration and that of the class, but her tone was so vehement that I didn't even try, so I picked them up and went home with them. Now, that was a life-taking experience from the point of view that I was so afraid to risk anything the rest of the time in kindergarten. I can't remember, in fact, ever

saying anything unless someone was saying something to me. Basically, it took the life out of me, and looking back at it, I probably gained very little in that entire year as a result, and in fact, if I think about it, it probably affected me in the early elementary grades.

Now, when I was in Malakkara, I said ok, what about a life-giving experience? And it didn't take me very long to think of one of those either. I remembered the first day of high school. We'd divided up into sections, and there was something called homeroom where you'd meet for about twenty minutes in the morning. The teacher's name was Mr. Delaney, and Mr. Delaney said, ok, we need to elect a first representative to the Student Council and a second representative, whom should we elect? And right away, someone raised his hand and waved it about and shouted out Lenny Davy's name. I was kind of on the fringe of the school district so I didn't know anyone in that class, and I'd never met any of the teachers, but I did know Lenny Davy, he was the star quarterback of the elementary school football team, a very socially adept and articulate individual, someone everyone wants to emulate. Everybody shouted out Lenny, Lenny, Lenny, and of course the teacher said, ok, Lenny, you're the first representative.

And then what happened next was absolutely astounding, because Mr. Delaney said now we have to elect a second representative, and he didn't even ask anybody, he turned to me and said, Borich, would you like to do it? My goodness, why me? He never saw me except for a little eye contact in taking roll, no one in the class knew me, I couldn't understand what did he see in me that he would ever ask me to do that? In fact, I was so choked up I couldn't even answer, I just nodded my head, and he said, ok, you'll be the second representative. I was looking out of the corner of my eye, and the students were saying, "Who is this guy, really, how did he get chosen?" and I probably looked like some little nerd sitting there.

At any rate, that turned out to be, for me, a very life-giving experience. I had never thought of myself as being a representative to the Student Council, but Lenny Davy moved away from the school after the first year so I became the first representative and got very involved in the Student Council, and it was a big experience for all four years of my high school. That gave me life; in other words, it was life-giving because Mr. Delaney, for whatever reason, saw in me things that I didn't see in myself. And in the life-taking experience, that teacher clearly didn't see anything in me, and I took it as an embarrassment, and in fact I didn't want to risk anything, and couldn't become any more than she told me I was. With Mr. Delaney, I could become much more, even more than I thought.

This was a pretty elementary way to begin this sophisticated evaluation, but you can understand, I'm wandering around the playground, I'm seeing all life-giving experiences, and I'm not seeing any life-taking experiences, and I said, this is very unusual.

So I kept observing, and went back for another visit. By the way, when I got home after this first visit, I emailed Caroline Kirby and I said, "Caroline, I asked you about how long you want this report to be, and we said fifteen pages; could it be as big as fifty pages?" Because now I felt there was going to be something here, and I turned the junkyard dog skepticalness a little bit down. It was not off, but down, and I went back for another visit.

At the end of that visit, I saw three important things that began to get a little bit deeper into the Approach. One was the frequency, and what I'd call the fluidity, of integrated learning experiences. In other words, what was happening with these kids was they were into authentic real-life type of activities that they were learning from. It wasn't that there was a teacher standing up doling out — ok, here are the math tables, and here's what you have to memorize. They were running into events everywhere — in the demonstration classrooms, on the playground, everywhere they'd go — that integrated the emotional, social, and subject content. In fact, the students were so impelled — Betty Sue mentioned how interested they were in school that even on the days off they'd go to school — they had such an energy that they kept being impelled towards other things, new things, exploring things, discovering things.

I couldn't help at that point but remember a videotape I had seen, of a university research project that went out and got four NFL football players, at the peak of their game, and asked them to come into a daycare with three, four, five year olds, and asked each one of them to follow one of the kids around for two and a half hours, and they videotaped it. They took one minute out of each fifteen minutes, so at the end of it they had ten minutes of videotape from beginning to end, one minute each. I started watching it, and the NFL players were instructed to just mimic whatever the child would do. If the child plays with a toy, you play with the toy; crawl on the floor, you crawl on the floor; run over there, you run over there, and indeed you saw that, at the beginning of it. Then, about halfway through these little segments, you saw... well, they're slowing down a little bit, and then finally, at the end, one NFL player is in the corner, just sitting there, trying to mimic the child just by waving his hand. Another one is sitting in another corner, just drinking a can of Coke, he gave up totally, and the other two weren't much better off. (laughter) They wore these people out.

That was what I was seeing — the impulsion the kids have to learn. One could make the case that there were really no adults there — observing, but not playing an active role in this day care. You could say, according to one fiction, the kids should have sat in the middle of the room and waited to be told what to do. They didn't wait for a second! None of us wait. We're always out exploring, getting ourselves into trouble, perhaps, if an adult isn't there to help us out, but we're always seeking something.

And in this environment, there was not a constraint or an imposition down, say from a teacher, or from a very, very constructed curriculum, that was released, and these authentic learning experiences were being found all over the place. These kids could move around and in fact they were using their energy, not only in the early grades, but the later grades as well.

The second, in addition to this integrative learning experience — which is learning in authentic real-life chunks, not just doled out in little pieces in a textbook or a classroom — the second notion that I found was what I wound up calling unselfconscious immersion. What I saw with these kids is that, when they were involved in these learning experiences, they had no awareness of anybody or anything around them. In other words, they were so deeply involved in it that, in fact, it's what psychologists today call deep learning. They believe that we learn and remember the most when we are so immersed in something that we do lose consciousness of our surroundings. We call it flow. Studies have shown that people who are in this flow state are those that are the happiest, and when you think about it — if you're a tennis player, you're playing tennis, you're playing

golf, you're doing what you really love to do, your worries at work, your worries anywhere else, go away, they're crowded out. And while some would say that's playing, or that's a hobby, you're learning a lot, your mind is working, in fact some would say very actively, thereby deep learning occurs in those un-self-conscious states of immersion. You're immersed in something you really like. Remember, in this school, these kids are impelled by their own self-interests.

And thirdly, is the notion that I found called trust and confidence, and Betty Sue referred to this as well. The feeling you got was that these kids were valued unconditionally. Now, that's a tricky proposition, because when you say valued unconditionally, does that mean that two plus two can be five in this school? No it can't, and the teacher has an obligation to tell the child. But what it means is that, if the child does say it's five or seven, that child honestly believes that his or her relationship with the teacher remains unharmed. In other words, their value does not depend upon what they give back in some structured way. In some cases, to develop this teacher-child relationship, this trust and confidence I talked about, for some it can be done in a few days in school, when they come, for others a few weeks, some a few months, and in fact, for some, there's a history that it can take a few years. It depends on your background, your home life, where you're coming from.

But the child honestly believes that he or she is valued, not just for what they can give you at that particular moment. What does this do, and why is this so important to the school? Once this happens, and the children realize the relationship is honest, then they'll risk something. Then they'll go again, and do it again. They're not afraid of being wrong. Now they are clearly in a learning situation. Not like me in the first grade, or in the kindergarten that didn't want to risk anything. In a sense, this riskful behavior is very key to the KPM Approach to Children, and this comes about only from the trust and confidence that is developed between the teacher and the child.

We'd all like to say, and think, that we value our children unconditionally, that as parents we value our children unconditionally, but that depends. Sometimes yes, and sometimes no. If indeed you value the child, and the child feels he's valued because they keep their room neat, or he comes home on time, he does what we want, that's not what we're talking about. In other words, not that those things shouldn't happen — the room should be neat, you should come home on time — but the child has to honestly feel that there's more to that child than there is to just what you do. And that, in a way, is what Mr. Delaney did — risked a little bit and said, I believe in you, Gary, even though I don't know too much about you, in fact, you know, maybe a lot of things about you I don't necessarily appreciate, but I believe in you. And that belief is a kind of mosaic that goes throughout the school.

Now, at this point, let me give you an example of these three concepts: the integrated learning experience, the unselfconscious immersion, and the trust and confidence. There are plenty in the book, and Betty Sue read one of them, but this one is not in the book.

I was observing, on my second or third trip, and all of a sudden I heard a child cry out — actually, it almost sounded like bloody murder, the cry was so loud — and I walked to the end of the playground, and a teacher went over there. This was a small child, very young, who was sitting on something that had some wheels, I don't know

exactly what it was, like a tricycle or something, that moved along like kids do, and all of a sudden, this child ran into a hill and couldn't get this thing to move up the hill. And at this particular moment, everything shattered in this child's world. He couldn't understand why it couldn't go up the hill.

So the teacher was there, and here was what, in the KPM Approach, I call openings — you might know of them as a teachable moment — and the KPM teachers are very vigilant to watch all the time for these teachable moments. Here, the teacher went over immediately, and in true fashion of the KPM teacher, didn't solve the problem for the child, didn't even interpret the problem in terms of the teacher's eyes, but asked the child, "What's wrong?" Well, the child was just too upset at this point to kind of respond, but the teacher asked the child a couple of times more and finally had to help the child, and the child did say, "Well, I can't move this up." The teacher said, "Well, have you had this problem before, can you think of other times that this has happened," and the teacher volunteered, "What about when you go upstairs, versus downstairs, is it harder to go upstairs than downstairs?"

Now, what happened next is very typical, also, in a KPM integrative learning experience: other children who saw that there was some action going on here on the playground, started to come over — wait a minute, now, something special is happening here. And they came over, and the teacher is asking, the kid finally responded, "Yes, going downstairs is easier than going upstairs," and then some other kid volunteered, what about — now the other kids were teaching this kid — what about when you lift something that's very big? Usually that's heavier than something that's very small, and they ran around and got a big stone and a small stone, and had the kid raise the big stone and the small stone, and one's heavy and one isn't, and pretty soon the kids were teaching along with the teacher. Finally, the teacher sent an aide away to get a little beaker of sorts and they put some tape over it, put a little hole in it, put a straw in it, and the teacher asked, "Who could suck the water out of this little beaker?" And the older kids said, "Of course I could," they're used to putting straws in Coke bottles and so forth, but they had a great deal of difficulty doing it, and even the older kids were a bit surprised.

And the teacher said, "Well, someone else was very concerned about this topic, and it happened to be Sir Isaac Newton," and the aide went and got a book that was an encyclopedia for kids, and she opened it up to Sir Isaac Newton, and I could tell that the book was still way above the kid's head, so she was paraphrasing, and she said, "Well, there was an apple, there was a tree, ...went up the tree, ...and the apple dropped faster than the feather..." That got everybody interested, and the big kids climbed up on the monkey bars and dropped — they didn't have an apple, it was a mango, and they actually found a feather — so they're up there, now the feather's dropping... Now this kid is really getting interested in this, and the older kids are learning from it, and finally they said, "The reason that you couldn't suck the water out of the straw is because Newton had discovered gravity, and that there are hundreds of miles of air up above us that are pushing down, and when the top is over the beaker, you shut out all of that pressure from above, and then, when you open it up, you can draw the water out."

This kid was facing gravity for the first time, you know, the effects of gravity, and in fact the teacher even went on and said, "I do have to tell you something," — the older kids were pretty interested — she said, "You know, to tell you the truth, in certain circumstances, heavier things don't fall faster than lighter things, that happens to be in a

vacuum.” She said, “...there’s this guy called Galileo who did some experiments on this...,” so you can imagine, I’m sitting on the playground watching this, and I’m floored. I say, I don’t find this kind of learning going on in my college classrooms, and all attentive to it.

So these are the kinds of integrative learning experiences that they come upon every day in school, and they’re impelled from within, they’re not afraid to risk things, it was certainly an authentic real learning environment, it was a real event. He didn’t ... someone could have come along and said, “Let me read you a definition of gravity...” I don’t think that would work. That’s what they did to all of us in school, but they were discovering it and exploring it as they went along. The unselfconscious immersion — these kids had no awareness that I was even there, they didn’t even know who was around at that time, they were in deep learning about this.

The trust and confidence came across in this in the sense that they weren’t afraid to risk answers all the time, and nobody was shy about it. In fact, the older kids were helping the younger child, and that trust and confidence — they were willing to go beyond the teacher, even without limits, and risk whatever they thought was appropriate at the time.

Now, I have to admit that at this point I was getting pretty enthused about the KPM Approach, and I have to admit I now changed from a kind of a skeptic, and I’m now more appropriately characterized as a dispassionate observer. I wrote Caroline again, an email, and said, “You know it’s about that fifty pages, could it be like maybe seventy-five, eighty, would you be upset?” I’m sure she had a big smile on her face as she emailed me back and said “No.” I was starting to think, there’s a story here someplace.

I’ll be honest with you, I really had some dark moments at this point as well, because while I was beginning to understand some things about the school, and they excited me, they didn’t really speak to me as a cognitive psychologist. A cognitive psychologist tries to understand what goes on inside the kid’s head. A behavioral psychologist wants to see certain types of behavior, and, “What do I have to do to get that behavior?” — that’s where they learn about reinforcement and punishment, and so forth. But the cognitive psychologist says, “It’s really of no use just to evoke that kind of behavior, because that behavior could be achieved maybe for the wrong reasons, and if I could understand what goes on in the kid’s head, then, if I could make the child think this way, it would apply in general to any and all situations, even those in which he did not particularly learn that particular behavior, and I could change the context...” And that, I was really struggling with. I said, to make this credible to my colleagues and to the academic world, I did have to get into the cognitive psychology of this all. Those were kind of my dark days.

The way I had formulated it up to that point was: kids are constantly challenged in this environment. There is no imposition from above in terms of putting you in a kind of box in which you do...; they reach out, they’re impelled from within, like the NFL football player story, even at any grade. We learn to do that. Although many times, in a traditional setting, the idea is that we learn very quickly as students to understand what the teacher wants and give that teacher back what he wants, and sometimes it becomes a game. In college: “I’m going to psych out the professor, what does this person want, I’m

going to learn it, and then I'm going to give it back, but I'm not going to risk anything other than that; I want to learn what the game is."

These kids didn't have a game they were playing, they were impelled from within, and they were reaching out, always into some kind of challenge of some sort. In some cases, like the child in the playground who burst out crying, they get themselves in trouble. The other part that I felt was so important... the challenge was important, but what happens when this challenge came? Like the child in the playground, it's like — what he believed the world was made of just changed in one fell swoop, right in front of him. "I can't go up that hill and I don't understand this." The old connecting points between things didn't work any more, and there had to be a re-organizing experience — which was the teacher going through the Newton example — that somehow reorganized this experience for him, so that the old connecting points kind of dropped by the wayside, or were used in connecting things up in a different way. "Ah, gravity... ah, some examples of gravity...ah, it's like going upstairs, downstairs...it's like dropping a mango from a tree versus a feather..." and so forth.

Now you're putting new connections together, and getting larger and larger understandings — what I referred to a moment ago as deep learning— in wider and wider nests of increasing embrace. What I meant by that is, these kids come to school with a little umbrella over them, and an umbrella can keep the rain out. But then you get a big rainstorm, and the rain starts coming in from the sides of it, and oops, you need a bigger umbrella, you have to increase the size of your umbrella. Well, you increase that size of the umbrella, and there's some other threat that comes in, it rains still harder and you increase your umbrella. By understandings, in wider and wider nests of increasing embrace, it's... as old knowledge goes by the wayside, new knowledge comes in, you now put that together, and now, your concept gets bigger and it can handle what's underneath it. The kid says, "Ok, I can handle why I can't go up on the inclined plane," but that kid's going to be challenged again by other things that are going to happen. He's got to open that umbrella more, he's got to have connecting points that help him conceptually understand what's going on.

And that's what's happening to these kids in the school, through these integrated learning experiences, as opposed to the way in which school is usually organized: sixth grade comes along, and seventh grade, and then eighth grade. It's kind of connecting cars to a train, but the cars are different, they kind of just smash into one another or fuse with one another, they're not so integrated with one another, there's... it's hard to say what's in eighth grade that relates to seventh grade; it's more of the same, the first year of high school, it's more of the same. It's what we call the building block model of learning.

This is the integration of learning through these integrated learning experiences, where kids' umbrellas are getting bigger and bigger, and they can handle more and more rich concepts, but it comes at the cost of being challenged in some way, in having a contradiction. A paradox comes in your life, and that happens because there is no imposition that puts you in a certain direction. You can go in any direction... that kids get themselves in trouble — in the best way, sometimes — to do this.

And now I understood the teacher as resource. It dawned on me — ah, teacher as resource — she was a resource, not a teacher to give you information. The teacher says, "You have been challenged, I have to help you out of that challenge, to give you

something that helps you understand what this is, but I'm not going to interfere with that — you're the one that has to work through the understanding of it."

Well, call it serendipitous or not, but then a very serendipitous thing happened to me. Some people would say there are no such things as coincidences. I rarely eat lunch, but someone called and said, "Would you eat lunch?" — there's a place on campus where faculty eat lunch — and I said, "Yeah, I'll meet you over there," and when I get there, I had a message that this person couldn't make it, they got tied up, and I'm there, and I said "Ok, as long as I'm here, I'll eat lunch" — for my family, who's here, it was just a teeny salad... (laughter) It was crowded, and this man came up and sat down, which is customary, and said, "Can I eat lunch with you?" I said, "Sure," and he asked, "What do you teach?" And I said, "Well I'm in the educational psychology department;" he said, "I'm in the chemistry department, well, not quite chemistry, it's between chemistry and biology," and right away I'm pretty intimidated, because educators on a big campus are kind of at the low end of the food chain, and I figure his IQ is probably fifty points higher than mine, but he was a very, very nice man, because the next thing he said was, "Well, what are you working on?" I said, "Well, this project in India has really gotten me pretty upset and I haven't been able to reason it out," and he said, "What is it about, would you tell me about it?"

I thought it was kind of strange that a chemist would be so interested in it, in something in education, and I told him that I've got some of the pieces, I think, as to how these kids learn, but I'm uncertain about some things, and there are some missing pieces. I told him about the metaphor of the umbrella and I said, "You know, they're challenged... and then they have to have something to help them reorganize the connecting points, relationships of how they saw the world... and some of those relationships aren't going to work anymore, and some new ones have to be built... and finally they get integrated, and the umbrella gets bigger and they can handle that concept for that time, until it's threatened again..." And quite to my surprise, he turned to me and said, "You know, that's something I've worked on." I said — well, come on, you know, what is that? (laughter) He said, "Well my field is trying to find out how lower life forms evolve into higher life forms, in the laboratory." He said, "You know, this sounds a lot like what I've studied, and here's what I've found out. These lower life forms will always stay lower life forms, and eventually die out because they are lower life forms, unless they are stimulated by something..." In other words, there's a threat that has to come from the outside that wakes them up, and when it wakes them up, then they have to deal with that threat in some way. The umbrella has to get bigger, the connecting points don't work any more. "That threat comes and now an interesting thing happens," he said. "We've tried out, in my research, we thought that with this threat that comes, this organism should move in this direction to survive, and sometimes we place some constraints on how it can respond, and you know what happened?" I said, "No," and he said, "It dies, if we place any kind of constraint as to what way it should evolve into."

This reminded me of the school, because it's self-directed learning. How does the kid evolve from this challenge? It's not that... oh, you have to follow the curriculum, and I'm going to tell you what the answer is. You have to discover that answer. He said, "When we took the constraints off, then the organism rises to a higher level. To be sure, some of these older points kind of die off, parts of the organism die off, and it creates

new growth, in a new area, and then we stimulate it again with some kind of challenge, we don't put any constraints on it, and now it gets a higher life form, in effect. I believe, in effect that's how we're all here today, because of that — the challenge and the freedom to evolve in a way, to always mold ourselves around whatever that challenge is." I said, "Thank you very much," then I felt quite dumb, because this sounded a little familiar to me, when he was talking about it. I then remembered stories in the paper and in fact, there usually was a picture of the person. And then he said, "This is my theory of dissipative structures." I clicked on it: this guy's name is Ilya Prigogine, he won the Nobel Prize in Physics and Chemistry. I'm glad I didn't know at the beginning of the conversation because I probably wouldn't have said anything; it was like I was in kindergarten. (laughter) Unfortunately, he passed away not too long ago, but not only was he a very nice man, he put the puzzle together. In fact, I read his theory of dissipative structures, and I now had a cognitive theory of really how this worked.

I still couldn't be satisfied with it, because, while I think I put the theory together... There is one aspect of the university that is nice, you kind of make your living creating theories, but they don't really have to work, as long as you're at the university. You have to get them published, you know, but that doesn't mean they work. Unfortunately in this case, I had a real group of people here, and this was expected to work, so we then went on to a second part of my study. First of all, I was struck once reading a book by Joseph Campbell called *Hero with a Thousand Faces*, and he traced, through mythology, how people become heroes, and I thought, ok, that's a nice metaphor, all the kids are heroes, how did they get to be heroes? From Joseph Campbell's point of view, in mythology there has to be a challenge of some sort, and then a threshold that you have to cross, and usually someone has to help you, or there has to be some aide to help you over the threshold. If you get over the threshold, then your behavior changes, and you go through this process again and become a bigger hero, and so forth.

So I used that as a kind of a template, and I asked the teachers, and we chose about twenty students in Malakkara, and five here in the Austin school. We asked the teachers to pick out those students that they feel that they knew a whole lot about, that had been in the school over a period of time, and I said, "I want you to write what we called children's journeys." Basically, they were journeys of these children through the school. No one teacher has a specific class, so the teachers know all the different pupils, but we got them together in teams, that knew some of the students best, and I said, "Write these children's journeys. But use the template: what are the challenges that you saw them face, what was the threshold, and what, most importantly, did the school do, what did the parents do, what did the environment do to help them over that threshold?" That's the independent variable, you know, that was the thing that was needed to be provided, "And describe the behavior change, and do it for the life of the child that we've chosen in the school."

They were beautifully cooperative in this respect, in fact the journeys that came back were, some of them, thirty-five pages, single-spaced, which I read through. Now, the game I was playing, in a way, was that the teachers had no idea what my conceptualization was. All they knew was that I was roaming around the school talking to people, observing. I took these children's journeys and I have about ten concepts. You've heard some of them — like integrative learning experience, opening,

unselfconscious learning, trust and confidence — that put this theory together, that was the heart of the theory. I went into these journeys and I found episodes that I thought would represent these concepts in the theory. Now I did it from the point of view of wanting to put them into the report so that you, the readers, could decide, but I said, “Here’s an example of this happening,” — this came across from the teachers writing about a child, who knew nothing about what I just told you today — and I looked down and I said, “WOW.” What kinds of matches I found in hundreds of pages of discourse about these children, and I share these with you, as Betty Sue mentioned, at the end of the book, where you can see for yourself, what were the challenges, what were the thresholds, what was the behavior change, and how well does it match this kind of cognitive theory that I discussed.

Basically, I’ll leave you with a couple of thoughts –

Obviously, at this point I’ve changed from a dispassionate observer to an advocate. I wrote Caroline Kirby one more time and said, “About that eighty pages, how about 100 or 150?” and that’s how we got a little fifteen-page report into a book manuscript, here. A few things struck me in looking back at this experience.

One is that in the history of education, in the United States, we’ve had three very influential movements. One is called the holistic movement, which basically believes that you can’t just teach the child subject matter, that there’s the emotional side of the child, the social side of the child. Too often in today’s schools, the teacher doesn’t have time for the emotional and the social, and it’s basically subject matter oriented. But the belief of the holistic people is that they’re all integrated, and that’s just exactly the integrative type learning experience I’ve talked about. The kid cried out on the playground, that’s emotional. Kids come around to help that child understand, and that’s social. And then there was the story of the subject matter, and encyclopedia information, Isaac Newton, and so forth. That’s the holistic movement. One supporter of that you might recognize is Abraham Maslow.

The second movement that’s been most influential in America’s education in the last century has been what you can call the humanistic movement. It has many kind of founders, but one was Carl Rogers, the psychotherapist, who came to the idea that, if I’m going to help somebody as a psychotherapist, I have to gain that person’s trust and confidence. “If they don’t honestly, unconditionally value me, I’m not going to give of myself, I’m not going to change, I’m not going to tell you everything you need to know to help me.” So Carl Rogers spent a lot of time writing about trust and confidence, how to get the trust and confidence of someone.

And finally, we had a movement called progressive education, by John Dewey, and John Dewey had a beautifully simple idea. He said, you know, if you want to learn something, you have to do it; learning is doing, that you just can’t stand up and tell someone something. Oh, they’ll memorize it, and they’ll have knowledge, but they won’t have understanding.

All three of these came together so beautifully in the KPM Approach to Children. If you’re in Malakkara, and you visit the High School, and you go to a chemistry class, they’re doing chemistry all the time, they’re doing biology all the time, doing social studies. They’re always doing what that subject matter is, getting immersed in it, getting involved in it.

Now, the truth of the matter is, if those are three such great movements, why don't we see holistic, humanistic, and progressive education in the United States? Well, we do, as holistic movements, as humanistic movements, as John Dewey's progressive education. But we don't see them together. Why? They're different camps, they're different societies, they have different magazines and journals, they have different followers, and if you're on one side of the fence, you don't dare go too far to the other side of the fence.

What happened in Malakkara, India? This program could not have been created here in the United States, in my opinion, for that reason. It had to go someplace else that wasn't troubled by the boundaries that exist in these ways, and consequently, while not mimicking those — I'm sure that they weren't even fully aware of them — but it allowed their intention and consciousness of: what's best for the kids, here? We're not going to subscribe to a movement, what's best for the kids? Of course, you have to combine the social, the emotional, and the subject matter, and of course you need the trust and confidence of the child, and you need to learn by doing, you need the experience of doing...all put together seamlessly. As I look back on my experience of writing, yes! They've created that seamless whole of the holistic view of education, humanistic and progressive education movements.

Well, I hope you enjoy reading the report as much as I enjoyed writing it, and thank you for caring so much about our children and for being here today. (applause)

I think we've reserved this time for questions, and our panel, so let me kind of moderate this. We have parents also here, so some of your questions might well be advanced to parents, or to Nancy Moore, the principal of our school here, or we have Doug here, I think Mary Thomajan will be here, Torran Anderson can help as well.

Q. Gary, I'm wondering about the effects on the family of children experiencing the KPM Approach...

A. (Gary) Well, I'll respond in a couple of different ways. One is, I think what is happening here is far more important than just school alone. One often tries to put this in the category of an alternative school system, but it has as much to say to the teacher in a public school system as it does here. It's not going to operate the same way in terms of fluidity of space, and flexibility, and curriculum, but the truth is, everything we've said today is what every school teacher wants to emulate, whether they're in the public school system or alternative.

The second thing, now, is more directly to your question. Parents! Here's another audience, here, and as they will tell you in Malakkara, that unless you have the cooperation of the parents, with the same values that we espoused here today, that this approach isn't going to work nearly as well. The parents are important, and in fact the whole idea of how do you raise your child...I hit upon one kind of touchstone in the sense that you have to value the child unconditionally. Well, you know, I shouldn't be talking like this, my kids are here, but — yes, if somebody asks me, that's a nice, politically correct thing to say. What parent wouldn't say that, you know, but when it comes down to our own behavior, I'm not sure that all of the time that, in fact, was there in my own life. You value your kids because they give you what you want, they behave the way you want. And yes, it's important that they do behave that way, but from the child's point of view,

we're looking at it from the child's point of view, if they don't believe that you would accept them unconditionally, then it's very hard for them to change their behavior as a result of that. I think there's a whole area here in which I think parents — and I think your question is good — how are they affected by having a child in the school? They can't help but be affected by it, because their child brings that home with them. And I think, in turn, as the parent begins to ascribe to these values, then they accentuate to a great extent their effect on the child in school.

Q. How has what you've learned affected how you perceive your job in teaching and how you approach your students?

A. (Gary) That's a dangerous opportunity. (laughter) It's affected me a whole lot, which, as I've said — I'm not someone to get affected by things much. This was something that certainly, over a two year period, I became less and less skeptical, opened myself up to it more, and I did find quite an effect on me personally. This has been a story, as you heard today, as much about me as about the KPM Approach. Obviously I went from skeptical, to dispassionate observer, with a cold, scientific approach, to finally, advocate, and that's quite unusual for my behavior, which speaks somewhat to the Approach itself.

Now we come back to the source of your question. Can I bring that into my classroom, and with my students? I've felt a lot guiltier about some things I do now, than before. (chuckles) To answer your question, yes, it has affected me. Now, what I thought about is, I'm in a traditional university, we have traditional public schools, and your first inclination is to make excuses for yourself — to say well, that institutional environment isn't set up for that, so therefore how I teach and how I behave towards my students is justified. To tell you the truth, I got over that. I don't think it is, because there are so many things with the KPM Approach that are so easily translated — in how you relate to students, your interaction with them. I think one of the most important things is — it depends on how you think about the world, is the glass half full or half empty — but I keep thinking about life-giving experiences, and how people respond to life-giving experiences. Some of us have had so few, we can't recognize them, maybe, but on the other hand, we may be too critical about the life-taking experiences. But what happens inside of you with a life-giving experience is that it unleashes the imaginative and intuitive capabilities that you have. In other words, a life-giving experience is: someone gives you something that you just didn't recognize yourself. And once that's given to you, you start to perform differently. So the connection there has nothing to do with the environment or an institutional structure, it has to do with how you relate to that particular person. You give them a life-giving experience, and, to tell you the truth, many times they're going to give you just exactly something back that's also life-giving. And I think about that more and more often than I ever thought I would.

Q. I have a question for someone from the school. What you said is that these students do very well on standardized tests, and everything I hear about the teaching is that it's all kind of hands-on and experiential and doing things, and yet to prepare for a test, you've just got to be learning content, so how do you get across that gap? Student, teacher, principal, anybody from the school?

A. (Tarla Nanavati, Principal of the KPM model school) I'll try to answer that question, because we've had children since 1999 take these national exams, both in the tenth and twelfth grades, there, and of course the syllabus, unfortunately — unlike this school which has the opportunity of not having an exam that all their future depends on — we try to get the children through that exam in the best way we can. We prepare them; each teacher knows what's expected of the children, and what they're supposed to do on those exams. But, what's unique about their preparation is the teachers are behind them every moment, especially in the tenth year and the twelfth year. They're right with them, helping them to prepare for those exams, and giving them all the different tricks of the trade, as you'd say, but giving a lot of encouragement, tremendous encouragement. And the parents, also. We meet the parents, the parents also have to come on board, and they're, of course, facing tremendous pressure from their relatives, from their friends and high expectations are there: "My child has to be a doctor, he has to be an engineer, they have to get into those schools, how are you going to ensure that?" These are the questions that are asked our teachers, and to us as well, but what is just amazing about that experience is the children are so close to the teachers, and they're able to take them through those exams in a happy, happy atmosphere.

Just to.... I just thought I would relate something, because we had an inspector come, an external inspector come, to make sure we were giving the exam properly, and that inspector happened to arrive right at the moment when we were bringing the children down, the first year, from the exam. He arrives, the bus opens, the children come off the bus, hug the teachers, tell them how they did, the teachers are all waiting for them, and it was a sight. The inspector told me afterwards, "I had to come at this time because I had to see this. Nowhere else would you find teachers waiting to find out how the children are doing, or even caring about that. This is something unique." So they're really pulled...with the teachers, the children really get through and do remarkably well on the exams, and they've all gone into different universities all over the world, Oxford University, some in California, some within India outside of Kerala State, but they've done tremendously well. And the best part is they come back, they come back to the school, they volunteer at the school, they love the school and they love the teachers.

A. (Gary) If I could just add a little bit to what Tarla's said... There is a national exam, as you heard spoken about, that all of the students have to take. Actually there are two of them, one in what we would call our sophomore year in High School, and the second one in their senior year. This is a very stringent, tough exam, in fact, it's what, on a 100-point scale, and the average is quite low, across the nation, but these students — all of them got 70 or above, and some got distinction, and it was almost the same picture the senior year when they took it. This was a question I had to answer: how could this happen? Because, you know, what I was looking at...while they do follow the national curriculum, it is loosely employed, in terms of these integrative learning experiences, and then, when they take the exam there is a period in which they go back, and they study for these exams. I think a couple of things were happening here. I think Tarla mentioned both of them.

One is that, in my view of this theory, this conceptualization of how they learn, first of all, they probably missed at least some of the details that would be on a test, because that test is standardized, it has some essays to it as well, but it's basically a standardized test. Well, that's facts, and we're talking about deep understanding, here,

today. Well, they could review, in a relatively short amount of time whatever they needed to pick up those facts. Why? Because they already had the conceptual scaffolding to hang these facts on. In other words, once you have the big picture, then the facts... you remember the facts. In other words, they're not just meaningless things you have to regurgitate back. They knew what chemistry was, they knew the big facts in biology and other subjects, so when they went and reviewed for the test, then rapidly, I believe, they could pick up what they didn't know in terms of the discrete pieces of information.

The other, which Tarla hit upon, was this notion of trust and confidence in the teachers ...the extent to which they actually applied themselves, to study for the exams, and in fact, that they applied themselves in school. For them, the distinction between learning and play got evaporated ... which is which, and pretty soon it doesn't make any difference. And for that, they had a lot of confidence and trust, to follow their teachers and work with their teachers. I mean, these are students that you get really, from a Western viewpoint, a rather strange phenomenon —where kids will go to school on a weekend and work with their teachers, particularly when they're studying for this exam. Well, you have to have a lot of trust and confidence and liking for your teacher, and you also have to feel that you've got the conceptual scaffolding, that in fact you're being successful in reviewing for this exam. I think it's the combination of having the conceptual scaffolding to put the nuts and bolts into — very rapidly, when you come back to the kind of standardized testing arrangement — and, the love of learning, basically. For them, learning was more of a process than a particular destination. They would engage themselves without always thinking about what the end product was, and in that sense, learn a lot more.

Q. Is there a relation, can you tell me the relationship to the student teacher ratio; and then, at what point would you say that a campus, the size, the enrollment number, is there a decreasing effect, or could it maintain itself as the larger school?

A. (Gary) I can't speak for the school itself, as to what it intends, but in my own belief, I knew what it was in the study, it was about 8:1, which is a very small ratio, by Western standards. But I wouldn't call it a teacher to child ratio, I'd call it an adult to child ratio, because teachers are not exactly the same. There are teachers who are certified in India, that have certification there, just the way they get certified here, but there are many chores, tasks, that are educative in nature that adults can do, in this kind of environment, which can change that, considerably. So I think that the ratio is important, but it's still undiscovered as to what that can be. Could it be a larger or a smaller ratio, I don't think we have that much experience with it. But I do think the adults play an important role here in addition to just certified teachers.

Q. To make it work, would you have to stay a smaller unit, then? Or could you envision this with an enrollment of one thousand?

A. (Gary) I don't want to answer for the school, but I personally feel that way, that it doesn't have to be that small. Now, somewhere there's got to be a line drawn, here, because I don't think you can deal with ... the interesting part here, what you're getting at is, my own sense of it is, that classrooms in the traditional sense can be fairly inefficient. Why are they inefficient? A teacher does a lesson plan that has to appeal to all thirty

people in that classroom, or thirty-six, though they have all sorts of individual differences. They could learn things in different ways, to different levels. That's very difficult to implement in a traditional classroom. What does the KPM Approach do? Well, they're really looking at kids individually, all the time, even though there'd be a teacher, there, and that teacher is assigned to look at six, seven, eight, nine students at the same time, but the instruction is going to go on, and the impact, on a one-by-one basis. So, in a sense, that's one of the impediments if you were going to have a class of thirty-six, but I don't think it is, if you have a class of twelve, or fifteen, or sixteen, in my opinion. I think that can be done, particularly if we change the classroom and the number of adults in that classroom, teachers plus others.

Any other thoughts from parents, here, or....

LAW WATKINS

If not, perhaps I'd like to bring this to a close. Thank you very much, Gary. (applause) As always, your comments are wonderful, and refreshing, and it's been very enjoyable. I don't mean to bring this to a close, by any means, but just to transfer our place, and that is to invite you all to refreshments in the Mansion nearby, where I hope you will follow Betty Sue's invitation to talk to people —parents, teachers, and the like — who have experience with the Approach of a personal kind. I also want to invite those of you who are interested to order or purchase a copy of Gary's report. Amanda Evans is here to handle that, so on your way out, if you wish to, please do that. I also would like to express the gratitude of the Institute for all of the volunteers who have brought this event together and made it possible. I can't name you all, but it involved the staff of the Institute, and the parents, and all of those who have contributed your time. Thank you very much.

And it was wonderful to have both of you, Gary, and Betty Sue, to present what you did. Thank you very much. (*Applause*)