Chapter 3: Who Are We Teaching?

Knowing Our Students as Learners

Several years ago a Dutch friend shared with us a story of his schooldays. It is a story of a young man’s remarkable resilience, but also a story that underscores how important it is for teachers to come to know their students as learners.

Arthur was born in the Dutch East Indies, what is now Indonesia, and had just seen his 13th birthday when the Japanese invaded. For the duration of the war, Arthur, his parents and siblings were interned in a Japanese concentration camp in West Java. While Arthur and his family survived the ordeal, life in the camp was hard and brutal. There was chronic hunger; periodic out-breaks of deadly diseases; the cruelty of the guards and an ever-present atmosphere of fear and anxiety. As a young boy, Arthur was not insulated from the realities and horrors of a world at war.

Four years later, following the fall of Japan and the return of the Dutch to Indonesia, Arthur and his family together with thousands of other camp survivors were repatriated to the Netherlands where Arthur was promptly enrolled in a government school.

Given the amount of schooling that he had missed, Arthur was placed in a class with children three years younger than himself. The school authorities and the teacher perceived Arthur through the lens of his deficits. They only saw what he was lacking in basic academic skills. They only perceived what he couldn’t do or what he was
struggling with. There was no question that Arthur’s basic skills in writing, reading and math were considerably behind his peers. But the school made no provision for the intellectual and emotional learning that Arthur had been engaged in during his time in the camps.

Arthur, who is now a retired oil engineer in his late seventies, recalls himself as an alienated and confused adolescent. “Because I was behind in my reading, the teacher treated me as she would a much younger child. She gave me the same books as the other younger students. No one seemed to understand or appreciate my experience. The other children? They were interested in movies and shopping and clothes. All of which I didn’t know anything about. They were kind and friendly. I just couldn’t understand them. There was nothing I could relate to. I felt as though I had been dropped into another planet.” As a result, school simply didn’t work for Arthur.

Unfortunately Arthur is not a historical anomaly. He has many more recent counterparts in our international schools. Bill recalls that in the mid 1980’s a Ugandan diplomat stationed in Tanzania brought his thirteen year old daughter for an admissions interview at the international school in Dar es Salaam.

Christine-Apollo presented as an extremely shy and withdrawn girl. She appeared physically much younger than her chronological age. Her gaze was downcast and she steadfastly refused to make eye contact. Her facial expression was blank and her eyes, when she did raise them from the floor, were vacant. Having said that, she often moved suddenly, casting her gaze around the office, like a small animal on the outlook for predators. She was dressed in an ill-fitting, well-worn school uniform from a Ugandan government school – clearly a hand-me-down. The father explained that Christine-Apollo didn’t speak English and that her schooling had been “interrupted”.
As Bill probed deeper, a more complete picture began to emerge. Christine-Apollo not only didn’t speak English, she also didn’t speak Kiswahili. She communicated only in her tribal language. She was the daughter of the diplomat’s third wife and had been brought up in a bush village in Northern Uganda. For the past four years, Christine-Apollo had been a nomadic refugee in her own country – moving from village to village hiding from the horrors and ravages of the civil war that raged during the years following the fall of Idi Admin.

As Christine-Apollo rose to leave Bill’s office, she tripped and fell to her knees. Both Bill and her father jumped to help. Christine-Apollo was clearly mortified. Her father apologized.

“She is not usually so clumsy. It’s one of the few times she has worn shoes.”

The childhood experiences of Arthur and Christine-Apollo were obviously traumatic, and they illustrate clearly how a child’s prior experience can have a profound effect upon their learning in school. But even children who don’t have such traumas in their past bring with them to the classroom experiences, traits and learning preferences that profoundly affect their learning.

In the previous chapter, we presented a model illustrating the relationship that we perceive (Figure 1) between a teacher’s knowledge of his or her students and the teacher’s knowledge of the curriculum. We see the integration of this deep knowledge of the student as learner with a profound knowledge of the curriculum as essential to designing learning tasks that will fall within what Vygtosky called the child’s “Zone of Proximal Development”, that frontier between challenges that are too easy and therefore boring and challenges that are too complex for the student’s readiness level and therefore are either simply meaningless or paralytically stressful.
The Zone of Proximal Development (ZPD) is the zone in which maximal student learning makes place. It is the teacher’s challenge to identify this zone and pitch learning challenges within it. It is therefore essential that teachers come to know their students as learners.

Teachers have long known intuitively about the importance of knowing their students as learners. All we need to do to confirm this is to think back to our own childhood and recall a teacher who had a profoundly positive impact on our learning. The chances are very good that this teacher made a personal connection to us and came to know us as learners at a deeply meaningful level.

While the most effective teachers have appreciated intuitively the importance of knowing their students as learners, as a profession we have not set about systematically and rigorously to gather data, frame probing questions and develop hypotheses about our students as learners. To our knowledge, very few teacher training colleges explicitly teach the classroom skills of clinical observation.

In the past, the ways in which teachers have gone about coming to know their students were not systematic, nor were they particularly rigorous. For the most part, the data was collected in a haphazard manner – tidbits from essays or student journals, a hint from an example of student art work, a guess from an overheard conversation in the corridor, or a comment from a parent or last year’s teacher. Teachers for the most part did not self-consciously set out with the goal of coming to know their students. In some cases, teachers did come to know students as learners and personal connections were forged. This was often when the personality of the student and teacher were compatible or when they shared a common interest (more often than not in the subject the teacher was teaching.) In other cases, the teacher ended the school year in June
with little more knowledge about a certain student than she had the previous August. Coming to know one’s students was an optional, haphazard and arbitrary business.

We believe that such days are over. The business of coming to know our students as learners is simply too important to leave to chance.

Our friend and colleague from UCLA, Barbara Keogh (1998) is fond of saying that a very significant number -- perhaps even most -- of the problems and issues that we perceive with student learning literally disappear when we engage in systematic and rigorous observation of our students. There is something about the act of deliberate observation that changes the ways in which we perceive; alters the nature of those perceptions and, as a result, actually reshapes our relationships with students.

We believe that we can address the challenge of coming to know our students by developing student learning profiles. Teachers develop learning profiles over time as they compile information about their students as learners in five critical areas. We have labeled these five areas: Biological Traits, Societal Influences, Social and Emotional Characteristics, Academic Achievement and Learning Preferences.

**Reasons why we need to developing learning profiles for our students**

When we consider the diversity of the children who fill our classes as learners, it seems foolish to think we could treat them all as a single entity. Children, especially in our international schools, come to us with a variety of stories and histories, cultures, languages, likes and dislikes, learning styles, and intelligence preferences. No two
aches or pains are alike, and no two family experiences are the same. As such, each child presents us with a different opportunity for learning.

Specialist teachers in elementary schools (music, art, PE etc.) and high school subject area teachers often see more than a hundred students each week. Those teachers can understandably ask: “How is it possible for me to come to know all these students as learners within the limited time available in the school day?"

It is a reasonable question. However, knowledge of one student as a learner is often applicable to other students. While it is a truism to say that each child is a unique learner, it is often more helpful to think that each child is a unique combination of common learning attributes. So, by coming to know one child as a learner, we are actually coming to know the learning attributes of many children. In other words, by coming to know what works in the classroom for one kinesthetic learner, we come to know what works for many kinesthetic learners.

Developing an in-depth understanding of the learner allows:

1. The teacher to more accurately identify the child’s Zone of Proximal Development and mediate the upward movement of that ZPD.
2. The teacher to design challenging units of study so as to maximize access to the curriculum for all learners, but perhaps most importantly for children who learn differently.
3. The teacher to develop rapport and trust so that he/she is able to juxtapose cognitive discomfort with psychological safety. We know that all children (and adults) need to feel physically and psychologically safe in order to learn. The lower levels of Malsow’s hierarchy of basic needs must be catered for. However, we also know that deep learning results from cognitive discomfort – when we confront a new idea that challenges our pre-existing mental models. By developing a deep knowledge of our students, we can create the psychologically safe classroom environment that will permit the intellectual discomfort that maximizes learning.
4. The teacher to demonstrate greater emotional intelligence in the classroom (greater flexibility of thought, greater empathy, greater patience, more accurate attribution of responsibility – that critical balance between student responsibility and teacher responsibility).
Perceptions of Childhood

Even before we approach the challenge of coming to know the individual learners in our classrooms, we need to explore the perceptions of childhood that we bring to that process. In other words, we need to understand what assumptions we have about childhood and children in general. We know two important things about assumptions. The first is that they exert a very powerful influence over our belief systems and behavior, and secondly, that most of them are held unconsciously. It is therefore particularly useful for teachers to bring to the conscious mind some of these assumptions about the young people we teach daily.

Our perceptions of childhood determine to a considerable degree how we actually interact with the children and young adults in our classes.

For this purpose, we have developed five possible lenses through which childhood can be perceived. These are obviously broad generalizations and we readily acknowledge that there are other lenses and that no one person is a pure type. However, it is sometimes useful to have such models or lens before us as we explore the process through which we construct our perceptions.

The Hobbesian Lens: Named after the 17th century British philosopher, Thomas Hobbes, this perspective views education as the process of preparing children to live in a civilized society. Human nature is understood to be profoundly influenced by selfishness. Through the Hobbesian Lens, the moral order of civilized society is something which must be explicitly taught to children. When viewed through this lens, children are seen as potential ‘savages’ with a leviathan residing within them that must be brought under control. Accordingly, one of the most basic purposes of education is
to socialize and domesticate children. Childhood is thus a period in which children learn to control their selfish urges and to master their destructive emotions.

At its best, the Hobbesian perception emphases that young children should be taught social skills such as turn taking, sharing, empathy and how to delay gratification. We see the influence of the Hobbesian lens in many of our international school missions statements that include the goal of developing young people into “responsible world citizens.”

When taken to an extreme, the Hobbesian perception of childhood can be dehumanizing and cruel. It characterized a great deal of education during the Victorian era and early twentieth century. Teacher control of the classroom was considered of paramount importance. Children were to be “seen and not heard.” Compliance was the order of the day and corporal punishment was routine. The “rod” in Proverbs 24 (“He who spareth the rod, hateth his son”) was clearly interpreted to be the ubiquitous Malacca cane that hung next to the teacher’s desk, not the comforting “rod” of the 23rd Psalm. Students were primarily motivated through fear.

Freud’s model of the conscious mind (Ego) as a battleground between the bestial, amoral and pleasure seeking Id and our ever-restraining Super-Ego (conscience), can be seen as a permutation of the Hobbesian lens. Young people need to acquire self-control.

We can even see the influence of the Hobbesian perspective in the Behaviorism of 1970’s and 80’s. Teachers were heavily influenced by B.F. Skinner’s operant conditioning and student self-control was to be engineered through the use of positive and negative reinforcements.

One of the most eloquent representations of the Hobbesian Perception of childhood is presented in William Golding’s classic novel. The Lord of the Flies, in
which a group of English choir boys are stranded on a deserted island following the crash of the airplane. Unlike the resourceful, resilient and morally upstanding Swiss Family Robinson or the school boy chums of Coral Island (from whence Golding took his inspiration) Golding’s choir boys descend into savagery and order is only restored at the end of the novel by the entrance of an adult authority presence.

The Rousseauian Lens: Named after the French philosopher Jean Jacques Rousseau, the Rousseauian Lens perceives children and childhood very differently. The child is seen as an embodiment of primordial innocence – Adam before the Fall – a well-spring of natural moral order. Rousseau perceived the innocence of childhood as being systematically corrupted by the pernicious influences of a competitive, cruel and controlling society. He perceived this corruption taking place in the traditional schooling of his age. He believed that evil was not a naturally occurring phenomenon, but rather a learned state. In his treatise on education, Emile, learning (as opposed to schooling) is presented as a natural and gentle process that taps into the child’s pre-existing curiosity, creativity and motivation.

In literature, perhaps the most passionate expression of this romantic view of childhood is captured in the poetry of William Wordsworth. The child is perceived to embody a natural wisdom and is described as “father to the man”. There is an almost divine quality to childhood and the child is described as “trailing clouds of glory”.

One of the most controversial examples of a Rousseauian perception of childhood was a school founded originally in Germany but later moved to Great Britain. Developed by A.S. Neill, Summerhill School was a truly radical experiment in which there were no adult-determined rules, punishments or negative consequences for anti-social or disruptive behavior. The organization of the school, the schedule of classes and the actual curriculum were determined by the students themselves. Like
Rousseau, Neill believed that children were inherently good and that if provided with freedom they would naturally gravitate towards responsible and constructive behavior. The difficulty with any enclave community, such as Summerhill, that derives its identity and* raison d’etre* from attacking a corrupt and cruel external society is that its graduates had an extremely difficult time re-integrating into the society they had come to despise.

**The Confucian Lens:** As globalization is increasingly recognized as a reality, particularly in our international schools, it is very useful for Western teachers to understand something of the Confucian world view and this particular lens into childhood. While the word “Confucian” has a historical link to China and the Far East, many of the attributes of the Confucian Perception of childhood can be found in traditional societies around the world.

Confucian values include an emphasis on the collective welfare of group as opposed to our more Western focus on individual autonomy. Confucian collectivism is seen in the subjugation of individual needs and desires to the furtherance of the larger group. This might be manifest in profound loyalty to one’s family, one’s village or tribe, one’s employer or even as an expression of nationalistic patriotism. Confucian societies are hierarchical with the elders occupying a revered position of respect. Ancestors and the accomplishments of past generations are greatly honored and stability and social cohesiveness are highly valued. Children are expected to honor and respect their parents and teachers. One of the greatest compliments that the young can pay to a highly skilled, elder craftsman or artist is to imitate the master. This focus on imitative learning often leads in Western oriented international schools to confusion about plagiarism.
In Confucian cultures, learning is perceived to be the transfer of the knowledge and values of the previous generation to the younger generation so that the collective good and stability of the society is preserved. Children are not expected to challenge ideas or think critically or independently. Such thought might prove disruptive to the common order.

What we are referring to as the Confucian Lens extends into many traditional, non-Asian societies. Recall Frank, the Tanzanian scholarship student at the International School of Tanganyika who spoke eloquently in his Valedictory Address about the enormous challenge he had encountered in his move from a traditional Tanzania school into the International Baccalaureate Diploma program. The challenge was not in the complexity of the content material, but rather in the expectation that he was to think for himself, to challenge ideas, to analyze and evaluate theories and concepts.

Confucian and other traditional societies have historically placed a greater value on boys than girls. We see this played out in the disparity in literacy rates in Asia, the Middle East and Africa and it makes for a significant challenge for educators in international schools. A few years ago a poster in the UNICEF office in Dar es Salaam read: *There is greater probability that an 18 year old African girl will have acquired AIDS than the ability to read and write.*

In Confucian and other traditional societies, Western syllogistic thinking (if X, then not Y) is often replaced with an Eastern search for a “middle way”. Richard Nisbett (2003) in his book *The Geography of Thought*, suggests that it is no accident that Algebra developed in Ancient Greece and Geometry in China. He theorizes that thousands of years of cultural values and behaviors have actually affected the way in which Eastern and Western students think. Western “either/or” thinking lends itself to
the intellectual development of disciplines such as algebra, the experimental sciences, and precedent-based jurisprudence. On the other hand, Eastern thinking tends to be more expansive (as opposed to reductionist), more inclusive of both the foreground and the background, and more focused on social cohesion and stability.

Respect for teachers on the part of a child brought up in a Confucian or traditional culture can be manifested by what may appear to be quiet passivity. This often provides Western teachers with a challenge, particularly in the area of English as a second language where active engagement with the content is perceived to be a key to learning.

A sign in a Buddhist temple in Japan reads “Speak only if you can improve on the silence.”

The Malthusian Lens: Thomas Malthus was the 19th century British economist who postulated that the supply of food increases arithmetically, whereas the population grows geometrically. Through the Malthusian Lens, children are perceived as either economic assets or liabilities. We see children viewed as economic assets in developing economies that are reliant on agriculture. In subsistence-farming communities, children are frequently viewed as critically important workers upon which the actual survival of the family may depend. Birth rates often reflect this perception. This is also borne out in the negative population growth rates in some affluent Western counties.

We even see the legacy of the Malthusian Lens in Western societies where our school calendar still contains a long summer vacation when a century or so ago the children were needed to work in the fields. In fact, much of the 20th century “industrialized” model of American education (the influence of Frederick Winslow Taylor and his Scientific Management) can be interpreted through a Malthusian Lens.
In a century ushered in by Henry Ford’s assembly lines, it was understood that most children would grow up to work in repetitive and mindless jobs in factories. What better training than the repetitive and boring rote learning of the mid 20th century school house!

The Malthusian perception of childhood manifests itself regularly in our school when we hear parents and board members talking about how students need to be prepared for the “real world of work” or when educational success is reduced to acceptance at a prestigious university.

**The Deweyan Lens:** At about the same time as Henry Ford and others were industrializing America, John Dewey was at Columbia and the University of Chicago, rethinking the 19th century perception of children and childhood. He radically challenged a number of cherished beliefs. First of all, he challenged the notion that childhood was somehow a “preparation for life”. Dewey believed that childhood was not preparation for anything, but an essential part of life. When childhood is perceived as “preparation”, it is construed as a means to an end, and it is seen as having little, if any, intrinsic value. It is a stage that one needs to grow out of as soon as possible. A natural consequence of this perception is that childhood is not respected (how many times have we heard children admonished not to act “like a child”? and the period of time a child spends in school becomes a “quarantine” of sorts.

Dewey also challenged the prevailing notion that children were simply empty vessels that teachers would fill with facts and knowledge. He understood that for children (and adults) learning is fostered in active engagement with the concepts to be learned. Children need to work with ideas, to explore concepts and to apply them. It was Dewey and others in the Progressive Movement in education who set the stage for constructivism, active engagement, cooperative learning and many of the other
elements that we frequently see in schools today. It was also Dewey who, like Jefferson before him, saw the critical link between high quality, universal education and the maintenance of democracy and freedom.

We readily concede that these “lenses” are generalizations and that there are numerous other ways in which children and childhood can be perceived. We also recognize that each of these perceptions have positive values embedded within them, but are also subject to abuse – particularly when one “lens” is embraced at the expense of the others. Accordingly, we believe that it is critically important for teachers to “uncover” their own perceptions of childhood as they will almost certainly color and shape the way in which we come to know individual students as learners.

**Five Dimensions of Knowing Our Students**

We suggest that there are five important dimensions that can come to comprise a meaningful learning profile of our students. These include: Biological Traits, Societal Influences, Socio-Economic Factors, Academic Achievement and Learning Preferences.

**Biological Traits:** *What can we learn about a child biologically, that will allow maximum accuracy in our interpretations of that child’s behavior?*

Knowledge of a child’s biological learning traits can help a teacher to accurately interpret classroom behavior. For example, it is all too easy for us to fall back on the labels of “laziness”, “defiance” or “willfulness” when in fact there may be a biological cause for the child’s behavior. The types of biological information that we might gather can include the child’s medical history, family history, abilities (particularly those outside of school), disabilities and developmental progress.
We are learning now that even gender (which in the past some people regarded largely as a socio-cultural influence on learning) is a biological trait in that there are some distinctive physiological differences in the male and female brains (King & Gurian, 2006).

Biological parameters for learning are defined to some degree; however they may be malleable with appropriate context and support. For example, it is certainly not uncommon now to see teachers wearing wireless clip-on microphones that are connected to a hearing device for a hearing impaired child. We also know that children with Attention Deficit Disorder (ADD), Autism and Asperger’s Syndrome are educable and our knowledge of these biological traits allows us to construct meaningful and worthy learning objectives for these children.

“We cannot direct the wind, but we can adjust our sails.”
~Anonymous

**Societal Influences:** What do we need to be aware of (particularly within ourselves as teachers), in order to be sensitive to societal influences upon the child, such as economic status, race, culture and gender?

A number of years ago, Bill was interviewing prospective IB scholarship students at the International School of Tanganyika in Tanzania. One student had already completed the first year of Sixth Form (equivalent to the first year of the IB Diploma). Bill was curious as to why the student had “dropped out” and he asked about the circumstances. The student replied that the food at the school was bad. Bill was incredulous. Tanzania was (and is) a desperately poor African country in which less than five percent of the population was privileged enough to get to Sixth Form

1 Please see Chapter 10: Differentiating for Girls and Boys for a more detailed discussion on the physiological differences in the brains of girls and boys and the implications for the classroom.
education, and here was a student who turned his back on such a tremendous opportunity because he didn’t like the food in the school canteen!

Following the interview, Bill commented to a Tanzanian colleague that he thought the interviewee immature and spoiled. The Tanzanian colleague gently reminded Bill that the student’s previous school had been a boarding institution in a region of the country devastated by famine. The fact was that the school probably didn’t have any food for its students.

Societal influences play a significant role in learning. Research in social psychology (Aronson, 1999) confirms what most of us have known intuitively – that life is much easier for attractive, wealthy individuals who belong to the dominant culture and race. As a generalization, this is also true for students in schools – school success is easier if you are physically attractive, affluent and belong to the dominant culture or race.

Richard Nisbett proposes that students from different cultures actually think and to some degree learn differently. People hold the beliefs they do because of the way they think and they think the way they do because of the societies they live in.

Historically, the West has had a focus on linear logic, on syllogism, on knowing through exclusion and reductionist thinking. This has been fertile intellectual ground for the development of disciplines such as the experimental sciences. It has also lead us in the West to be intolerant of ambiguity and prone to the creation of false dichotomies (e.g. either you hate communism or you are un-American).

In the East, on the other hand, the focus has been more on holistic thinking, understanding the larger or broader situation. There has been an emphasis on the “big picture”, taking in the background as well as the foreground, and in seeking out multi-causes.
Nisbett (2003) relates the story of Heejung Kim, a Korean graduate student of psychology at Stanford University. Kim was exasperated by the constant demands of her professors that she speak up in class. Failure to speak up in class, her professors told her, might indicate a lack of understanding on her part. Failure to speak up in class limited the interaction in the class and therefore limited the learning of Kim and her classmates.

Kim wasn’t buying it. She felt that she and her fellow Asian and Asian American students would not benefit from speaking because their fundamental way of understanding the material was not verbal. For Kim, this was the essence of the difference between Western analytic thought and Eastern holistic thought.

Kim tested her theory by having people speak out loud while solving various complex problems. This had no effect on the Western European students. They were just as good or just as bad at solving the problems regardless of whether they were speaking or silent. However, speaking out loud had a very deleterious effect on the problem solving performance of the Asian and Asian American students.

While we are not suggesting that it is unimportant for Asian students to participate in class discussions, we are suggesting that we who teach in international schools are wise to remember the words of Samuel Huntington (1996) in his book The Clash of Civilizations and the Remaking of World Order: “In the emerging world of ethnic conflict and civilization clash, Western belief in the universality of Western culture suffers three problems: it is false, it is immoral, and it is dangerous (p. 310).”

**Social/Emotional Characteristics:** How can we recognize, honor and integrate a child’s social/emotional characteristics in order to provide the child with the psychological safety that accompanies a sense of belonging and membership within the class?
There are numerous social/emotional characteristics that impact learning, among them self-concept, temperament, emotional intelligence, ability and/or willingness to trust, motivation, status within peer group, interpersonal skills, culture (dominant culture vs. minority culture), previous school experience (familiarization with the culture of international school, etc.).

When Ochan was a child, many of her teachers operated on the clear understanding that the classroom was an academic setting and that student emotions were best “left at the door”. We know now that such a notion is impossible. We know that it is impossible to separate our cognitive and emotional lives (Damasio, 1994; Pert, 1997; Ledoux, 1996). When a child has experienced an intense emotional experience, we must expect that to influence the youngster’s ability to attend in school. These experiences can range from the grief of the departure of a friend (all too common in our very transient school communities), to the anxiety of a family member’s illness to the terror of witnessing a violent altercation between Mom and Dad.

A child’s academic and peer status can also have a profound impact upon his or her learning. In a typical classroom even in primary school, students rank themselves and each other in terms of how good a student each child is perceived to be (academic status) and attractiveness and popularity (peer status). Elizabeth Cohen (1998) writes “low status members (of the class) talk less than others, when they do speak up, no one takes their ideas seriously and other members may not even listen to what they have to say. Low status group members have trouble getting their hands on materials for the group task; they may even be physically excluded.” Cohen has suggested that teacher awareness of student status within the classroom is a starting point to making cooperative learning groups equitable. By assigning group work that require multiple intellectual abilities (no one person will have all the abilities – e.g. art, role play,
Making the Difference, 64

music), the teacher creates a learning situation that relies on group interdependence. The teacher can then deliberately search out opportunities to assign competence to low status students. “If the teacher publicly evaluates a low-status student as being strong on a particular multiple ability, that student will tend to believe the evaluation, as will the other students who overhear the evaluation.” According to Cohen the effective assignment of competence must have three essential features: 1. the evaluation must be public, 2. it must be genuine and true, and 3. the skills of abilities of the low-status student must be made relevant to the group task. Cohen is clear that assigning competence to low-status students is not just about increasing or enhancing self-esteem. It is also about modifying the expectations that other students have for the low-status student. There is, however, a caution. The low status student knows what he or she has done, so a false or disingenuous assignment of competence will do more harm than good (Cohen, 1994; 1998).

We have found that a very simple way to assign competence to a low-status student is through the use of paraphrasing. Paraphrasing sends three important messages: I am trying to understand what you’re saying. I value your ideas. I care about you as a person. These are messages that every student, but particularly a low status student, needs to hear.

Academic Performance: How does a student’s academic performance help us to ascertain the child’s zone of proximal development, so that we can create lessons that are appropriately challenging?

When teachers talk about academic performance, we often use the term “ability”. We talk about the challenges of teaching to a mixed ability class or the delight of watching a high ability student go beyond our expectations. Given how frequently teachers use the term “ability”, it was a surprise to Bill that Tomlinson &
McTighe (2006) in their book *Integrating Differentiated Instruction and Understanding by Design* almost completely avoid the use of the word. Instead of the term “ability grouping” Tomlinson & McTighe use the phrase “readiness grouping”.

Why would two bestselling authors deliberately use a phrase that would be unfamiliar to many of their readership?

Bill paused to examine his assumptions about the word “ability”. What does ability really mean? Is it synonymous with the student’s present level of academic performance? Or does ability imply natural aptitude and talent? Is there something about one’s ability in a specific subject area discipline that suggests potential for future success or failure? How malleable is ability? What is the relationship between ability and potential? What is the relationship between a teacher’s perception of ability and his or her expectations for a given student? What is the relationship between teachers’ expectations and student performance?²

Another critical question that we need to confront is how well equipped are teachers to evaluate a student’s ability? We suspect that teachers are much better able to judge a student’s readiness for the next learning challenge than they are a student’s ability. We would further suggest that readiness is the key concept in coming to know a student’s academic achievement.

The importance of teachers evaluating student readiness is supported by a substantial body of research. Longitudinal research ((Hunt, 1971) establish two features of effective differentiated instruction. First of all, more effective learning takes places when the amount of task structure by the teacher matches a student’s level of development. In other words, students who are functioning at a fairly concrete level of thought might require very explicit and sequential task instructions; whereas students

² Please see the description of the so-called “Pygmalion Study” later this chapter.
who are thinking more abstractly might benefit from task instructions that are deliberately open-ended and ‘fuzzy’. Secondly, there is a strong relationship between student achievement and a teacher’s ability to diagnose student skill level and prescribe appropriate tasks (Fisher et al., 1980).

In a study of 250 classrooms, Fisher and his research team found that in classrooms where individual students worked at high success levels, the students felt better about themselves and about the subject they were studying, and learned more. Fisher went on to suggest that a success rate of about 80% is probably optimal for intellectual growth.

The last sentence is worth dwelling on for a moment. This suggests that students who are achieving at success rate significantly over 80% are probably being under-challenged. Put another way, student achievement is not likely to improve when teachers ask students to practice what they already know.

Csikszentmihalyi (1993) and others in a five year research study also found an important correlation between student readiness and student motivation. The researchers studied over 200 teenagers, pursuing the question of why some adolescents become committed to the development of their talents while others become disengaged and neglect talent development. The study findings show a strong correlation between the complexity of the tasks developed by the teachers for the students and the individual skill level of a student. Students whose skills were under-challenged demonstrated low involvement in learning activities and a decrease in concentration. On the other hand, students whose skills were inadequate for the level of challenge demonstrated both low achievement and declining self-worth. Most destructive was the combination of low challenge task and low student sense of exercising skills (emphasis ours). The researchers write: “This situation, which accounted for almost a third of the
observed classroom activities, consisted mostly of reading, watching films and listening to lectures (p. 186). According to these researchers, teachers who are effective in developing student talents craft challenges commensurate with student readiness levels.

Typically, teachers differentiate instruction for student readiness levels by addressing content, product and process in four ways (Tomlinson & Allen, 2000):

- By varying the degree of dependence or independence of the learning activity (e.g. task complexity);
- By modifying the task clarity or “fuzziness”;
- By varying the degree of structure or open-endedness of the learning task;
- Or, by teaching or re-teaching particular skills in small groups as students need them.

It is clear that teacher adjustments that accommodate student academic readiness enhance both student achievement and student attitudes about learning.

**Learner Preferences:** How can we use various learner preferences to maximize access to the curriculum for all learners?

The assumption here is that it is possible to identify individual student learning preferences and to modify our instructional practices to create a match with those preferences. As a result, the student will improve his or her ability to learn. We think of Learning Preferences in four broad categories: Intelligence Preferences, Learning Styles, Production Styles and Student Interests.

- **Intelligence Preferences:** Historically, schools have tended to recognize and reward two types of intelligence: linguistic and mathematical/logical.

  We now know that intelligence is not monolithic, but is more like a Periodic Table. Gardner has identified seven specific types of intelligence. We also know that intelligence is malleable and is subject to a wide variety of influences. Many teachers find Gardner’s model of intelligence fascinating.
intellectually, but cumbersome when they come to actually attempt to apply it to classroom instruction. Sternberg (1985) from Yale University has also developed a model of multiple intelligences that teachers may find easier to apply in the classroom. Sternberg proposes three intelligence preferences. All people have and use all three intelligences but vary in particular preferences and in combination of preferences. These preferences may be shaped by brain “wiring”, culture, gender, and personal experiences. It makes sense for teachers to support students as they develop their intelligence strengths while providing opportunities to expand their non-preferred areas. Sternberg’s three intelligence preferences include:

**Analytical Intelligence:** This is the intelligence most often recognized and rewarded in schools. Students with strengths in this area learn well with traditional school tasks such as organizing information, perceiving cause and effect, logical analysis, note taking and predicting implications.

**Practical Intelligence:** Students with strengths in this area learn well when they see connections with the real world outside the classroom. They need to see how things work in the real world and how ideas and skills can be used to solve problems. They learn better by using ideas rather than just by learning them. Students with a preference for practical intelligence need relevance. They need to solve problems in a meaningful context.

**Creative Intelligence:** Students with a preference for Creative Intelligence tend to come at ideas and problems in fresh and sometimes surprising ways. They often prefer to experiment with ideas rather than “work” like everyone else. They include your divergent thinkers.

Sternberg’s work is well researched with students from primary school through university. His findings point to important achievement gains for students when teachers permit students to explore ideas utilizing their preferred intelligences, encourage students to express their learning in their preferred intelligence and teach regularly in all three modes. Teachers who
employ all three modes on a regular basis deepen student understanding and enhance retention.

➢ **Learning Styles:** Often teachers will use the phrase “learning style” to indicate a modality preference (e.g. visual, auditory, kinesthetic or tactual). We know from research and experience that individual learners do have modality preferences. Each of us uses all four modalities when we learn, but in different combinations of preference. Generally, the largest proportion of the population tends to be visual learners (these are students who greatly benefit from a graphic display of the material to be learned.) The next largest groups are those which include those who prefer kinesthetic and tactual learning experiences. Interestingly, research out of the United Kingdom is suggesting that a very significant portion of boys with learning disabilities have a preference for kinesthetic learning (so asking them to sit still all day long seems counterproductive). The smallest proportion of the population tends to prefer auditory learning. (This is significant given our proclivity as teachers to fill the classroom with teacher-talk).
Each sensory style may have particular academic difficulties that can be challenging to overcome.

<table>
<thead>
<tr>
<th>The kinesthetic learner may have difficulties:</th>
<th>The tactual learner may have difficulties:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpreting nonverbal communication</td>
<td>Learning if his or her feelings are hurt</td>
</tr>
<tr>
<td>Having good interpersonal skills</td>
<td>Succeeding without teacher approval and</td>
</tr>
<tr>
<td>Having legible cursive handwriting</td>
<td>respect</td>
</tr>
<tr>
<td>Sitting still</td>
<td>Working in a sterile, uninteresting, or</td>
</tr>
<tr>
<td>Listening to lectures</td>
<td>undecorated classroom</td>
</tr>
<tr>
<td>Spelling</td>
<td>Working in groups in which they are not</td>
</tr>
<tr>
<td>Recalling what was seen or heard</td>
<td>liked and respected</td>
</tr>
<tr>
<td>Expressing emotions without physical</td>
<td>Succeeding without lots of sensory stimuli</td>
</tr>
<tr>
<td>movement and gestures</td>
<td>and the opportunity to touch, feel, and</td>
</tr>
<tr>
<td>Sticking with one activity for long periods</td>
<td>manipulate things</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The auditory learner may have difficulties:</th>
<th>The visual learner may have difficulties:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading quickly when not allowed to</td>
<td>Taking action before either seeing or</td>
</tr>
<tr>
<td>vocalize</td>
<td>reading about what needs to be done</td>
</tr>
<tr>
<td>Reading silently for prolonged periods of</td>
<td>Working in an environment with noise or</td>
</tr>
<tr>
<td>time</td>
<td>movement</td>
</tr>
<tr>
<td>Following directions that are only written</td>
<td>Listening to lectures without visual</td>
</tr>
<tr>
<td>Taking timed tests that must be read and</td>
<td>pictures or graphics</td>
</tr>
<tr>
<td>written</td>
<td>Dealing with distractive physical</td>
</tr>
<tr>
<td>Learning in an environment with enforced</td>
<td>appearance of teacher</td>
</tr>
<tr>
<td>silence</td>
<td>Working in drab-colored classrooms with</td>
</tr>
<tr>
<td>Concentrating when distracting sounds are</td>
<td>no decorations</td>
</tr>
<tr>
<td>present</td>
<td>Working in a classroom with too much</td>
</tr>
<tr>
<td>Seeing significant details</td>
<td>visual stimulation</td>
</tr>
</tbody>
</table>

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3 Adapted from *Teaching Through Learning Channels®*. © 2005 by Performance Learning Systems, Inc., an educational services company located in Allentown, Pa. and on the World Wide Web at www.plsweb.com. Used with permission. All rights reserved. Please refer to their website for teacher resources, professional development and support.
(The following activities appeal to various types of learners.)

### Kinesthetic Learners:
- Hands-on activities
- Large motor skill activities
- Art activities requiring physical movement, such as sculpture and woodworking
- Manipulatives
- Field trips that involve physical activity
- Real-life experiences
- Mime, skits, and role plays
- Dance and sports
- Physical relaxation exercises
- Physical movement while working

### Tactual Learners:
- Objects to touch and feel
- Cooperative learning activities
- Group discussions and interactions
- Personal expression, such as sharing time and journal writing
- Fine motor skills activities
- Art activities such as sewing and model making
- Quiet activities done alone
- Peer teaching
- Discussions of emotional issues

### Auditory Learners:
- Lectures and verbal instructions
- Student speeches
- Audiotapes
- Discussions and debates
- Dialogues
- Storytelling
- Reading aloud
- Music, raps, and sound effects
- Auditory repetition
- Word games, such as puns and palindromes

### Visual Learners:
- Reading assignments
- Writing and note-taking assignments
- Visual arts, such as painting and collages
- Demonstrations and observations
- Telescopes, microscopes, and binoculars
- Videotapes, slides, photos, movies, and optical illusions
- Visualizations and guided imagery
- Quiet time to work alone
- Mind maps and visual organizers
- Computer graphics

Beyond modality preference, Rita and Kenneth Dunn (1993) have spent almost thirty years developing a learning styles model that incorporates stimuli from the

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environment, emotions, sociological groups, physiology and psychology. The Dunn and Dunn model involves two main types of activities: 1. the identification of individual learning styles, and 2. the planning and implementation of instruction to accommodate individual students’ learning strengths. Allowing students to use their preferred learning styles can include allowing them to choose when and where they will study (time of day, soft or hard furniture, in absolute silence or with background music); whether they will work by themselves, with a partner or on a team; or whether a learning activity is primarily visual, auditory, kinesthetic or tactual.

Carolyn Brunner, the Director of the International Center for Learning Styles at SUNY Buffalo sets out three non-negotiable rules for students using their preferred learning styles: 1. the student’s grades must either remain the same (if they are already acceptable or good) or improve; 2. the student's behavior must remain constructive and appropriate (if it is already so) or it must improve; and 3. the student’s use of his or her preferred learning style must not interfere with anyone else’s learning.

**Production Styles:** Allied closely with learning styles, production styles refer to the preferred mode in which the student expresses his or her learning. For example, an easily manageable model of production styles might ask the students to self-select into four different groups: the Writers, Performers, Builders and Artists. The students would then be given a learning task or activity that would correspond to their preferred mode of expressing their learning. Several years ago, Susan Baum and Hank Nicols led a differentiation workshop at the International School of Kuala Lumpur in Malaysia. They asked the entire teaching staff to take a quick individual inventory of their preferred and non-preferred production styles. The teachers were
then grouped together in their *least preferred* production style and given the following simulation task: *Design a product that shows the social and economic structure of a medieval European town, illustrating the relationships between economic classes and different forms of power and authority.*

And so the reluctant writers were asked to write, the shy performers to perform and the clumsy builders to build. After about thirty minutes each group made a brief presentation. As can be easily predicted, the products were awkward, concrete, unrefined and lacking precision. The participants were also noticeably frustrated.

Susan and Hank then regrouped the teachers into their *most preferred* production style and assigned the same learning task. The change in the room’s energy and enthusiasm was palpable. Thirty minutes later, the four groups presented their products with relish and pride. There was a richness and creativity and a depth of understanding that had been entirely absent in the previous products.

Had these teachers reached a greater understanding of medieval Europe in the previous half an hour? We suspect not. We suggest that there is a positive correlation between the complexity and sophistication of understanding and learning that a student can demonstrate and the degree to which he or she is permitted to use a preferred production style. We know that the anxiety and stress of being compelled to work in one’s least preferred production style can actually serve as an obstacle to cognition.

If we as teachers focus on only one production style (for example, writing) we may be artificially limiting students to demonstrations of superficial understanding and knowledge. The medium can significantly affect the message.

Another significant learning that emerged from Susan and Hank’s workshop was that teachers tend to be profoundly suspicious of their own *least preferred*
production style. We heard a number of teachers express concern that it was simply not possible to demonstrate the depth of understanding in building, for example, that you could in writing an essay. Another teacher dismissed a visual representation of knowledge as a “soft option”. However, when evaluated objectively against a precise rubric each of these production styles can yield products that are rich in conceptual understanding. We, as teachers, need to be aware of our own learning prejudices.

A caution: the choice of production style must match the teacher’s learning objective. The social and economic structure of a medieval city can be illustrated in numerous different ways. However, if the teacher’s objective is to have the student learn how to write a five paragraph essay, it would make little sense to allow the student to do other than write. The teacher might use a variety of production styles in the pre-writing activities, but each and every student would be required to write.

- **Student Interests:** Considerable research has been done in the area of student interests and choice which indicates a strong correlation between the degree of student interest and levels of motivation, achievement, productivity and long term commitment (Amabile, 1983; Torrance, 1995). Collins & Amabile (1999) write: “The freedom to choose what to work on allows individuals to seek out questions that they are highly intrinsically motivated to pursue. This high level of intrinsic interest will lay the groundwork for creative achievement. Teachers may incorporate this approach into the classroom by allowing students to choose their own topics for individual or group projects (in Tomlinson & Allan,2000).”

Csikszentmihalyi (1993) and others have also found that student interest was as critical to talent development as was the match between task complexity and student readiness for the task. Another important research finding was that students
who were interested in what they were learning were motivated to pursue learning experiences of ever-increasing complexity and difficulty. There is also a significant correlation between student interest in the learning content and his or her willingness to persevere in learning tasks that are momentarily not interesting.

Another important correlation to emerge from the research on student interest and choice is that students who are engaged in work which interested them were overwhelmingly more able to see connections between their present work in school and their future academic or career goals. These connections form the foundation of commitment to future learning and foster self-directness.

There are two basic categories of student interest and in each case the teacher’s role is slightly different. The first case is pre-existing student interest, those areas of enthusiasm which the child or young adult brings to the classroom ready made (for example: antique cars, fishing, folk music, social justice, or community service). The teacher’s role in this case is to search out the interest and find connections to the learning experience of the classroom. The second category includes the interests and passions that are mediated by the teacher. The teacher supports the student in finding connections between the work of the classroom and the child’s “real life”. The teacher mediates relevance and the students perceive the interdependence and interconnection of knowledge. This can be facilitated through authentic performance assessments. These connections provide for what Geoffrey and Renate Caine (1997) call moments of “hot cognition” (the visceral thrill of learning) that form the foundation of a life long love of learning.

*The best learning environment is like a good cafeteria. It not only affords the essential staples but offers a large variety of choices to satisfy individual tastes. This allows children to discover their natural interests, proclivities and special talents.*

~A. Jensen, 1998
Some Ways in Which We Can Come to Know Our Students as Learners

Most of us have not been trained in clinical observation. However, the fundamentals are not complex and the benefits of systematic and rigorous observation of students in the classroom can be truly remarkable.

<table>
<thead>
<tr>
<th><strong>Figure # 3</strong></th>
<th>SOME CONSIDERATIONS FOR THE CLINICAL OBSERVATION OF STUDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STUDENT:</strong></td>
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**Internal Influences**

<table>
<thead>
<tr>
<th>Sample Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperament &amp; Style: How does s/he respond to stimuli?</td>
</tr>
<tr>
<td>What is the student’s preferred way of learning?</td>
</tr>
<tr>
<td>Attention &amp; Learning: What is s/he paying attention to?</td>
</tr>
<tr>
<td>For how long?</td>
</tr>
<tr>
<td>Does the child have a learning disability?</td>
</tr>
<tr>
<td>Has s/he been diagnosed with AD/HD?</td>
</tr>
<tr>
<td>Highly Capable?</td>
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</tbody>
</table>

**External Influences**

<table>
<thead>
<tr>
<th>Sample Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background History: What is the family constellation, circumstances of the child?</td>
</tr>
<tr>
<td>What is the child’s prior school history?</td>
</tr>
<tr>
<td>Is s/he studying English as a Second Language?</td>
</tr>
<tr>
<td>Interactions &amp; Transactions: How is s/he interacting with peers and adults?</td>
</tr>
<tr>
<td>How is s/he managing the assignment/curricular area?</td>
</tr>
<tr>
<td>How does s/he respond to, how is s/he affected by the interactions of others within the class?</td>
</tr>
<tr>
<td>Other environmental factors?</td>
</tr>
</tbody>
</table>

**Consider:**

<table>
<thead>
<tr>
<th>Sample Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curricular Area: In which subject area is the observation taking place?</td>
</tr>
<tr>
<td>Time of Day: Is it morning, afternoon?</td>
</tr>
<tr>
<td>Environmental Factors: What kind of student grouping is s/he working in? (small, large, etc.)</td>
</tr>
<tr>
<td>What other environmental considerations are there? (lighting, noise, temperature, furniture, etc.)</td>
</tr>
<tr>
<td>What is the classroom climate?</td>
</tr>
</tbody>
</table>

*Making the Difference, 76*
Teacher: What is the teacher’s instructional style? What is the class teacher’s relationship and interaction with the child like?

**OBSERVATION PATTERN:**

1. **Suspend Judgment:** Identify existing conclusions regarding the child and suspend judgment to enable separation of perception from observation.

2. **Collect Data:** Decide on recording style; collect data.

3. **Frame Questions:** Look for patterns and connections; develop questions.

4. **Look for co-variation of data**
   - **Consistency:** Does the student always behave in this manner in other situations and at other times?
   - **Consensus:** Do others behave in the same way in the same situation?
   - **Distinctiveness of Action:** Is s/he the only one to behave in this manner?

5. **Consider all factors:**
   - Student internal and external influences
   - Environmental factors, including teacher
   - Curricular area

6. **Develop, test hypotheses.**

Ochan learned a very efficient way of using Clinical Observation from a first grade teacher at the International School of Tanganyika. Called “Post It Observations”, the teacher records brief observation notes on specific children on sticky notes. In the elementary school the observations can be categorized into the various learning domains that the teacher is working on (e.g. fine motor skills, group work collaboration, sight word vocabulary, etc). The “Post It Observations” in the secondary school can be categorized with regard to the teacher’s learning objectives or grade level benchmarks. All the observation notes should reflect a time of day and should be dated. In this way,

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5 Based on the work of H. Kelley, 1967

*Making the Difference, 77*
over time the teacher can monitor progress and celebrate successes. “Post It Observations” are also extremely useful data when teachers come to writing report cards or planning for parent conferences.

Another way to come to know a student deeply as a learner is to engage in a structured reflecting conversation about that student with a coaching colleague. Here we would highly recommend the work of Art Costa and Robert Garmston in Cognitive Coaching® (2002) in which the coach practices the skills of pausing, paraphrasing and probing (and withholds evaluation, advice and solutions). Please see Figure 4 on the following page which outlines a possible coaching map for coming to know a student deeply as a learner. Following such a coaching conversation, it is often helpful for the colleague to record his or her thoughts in writing. We suggest this because thoughts that are not recorded in writing remain in the ether. They are not editable. With the commitment to writing comes precision in both language and thought. We find the Student Analysis Instrument as illustrated as Figure 5 is often useful to teachers.
Knowing Your Student: A Coaching Map

The Coach:

1. Expresses empathy (not agreement or sympathy).

2. Reflects content, paraphrases for understanding and clarity.

3. Probes for specificity about the child’s interests (“What type of outside interests does the student have? If he or she were to plan a field trip, where might it be to? Sports? Music? Pets? Etc.”)

4. Probes for specificity about the child’s strengths (“What hunches do you have about the child’s preferred learning styles? What are you exploring regarding the child’s intelligence preferences? When have you seen the child at his or her best? In what medium does the child engage most intensely?”)

5. Supports the colleague in his or her analysis of connections and/or causal factors (“What connections are you seeing between when this child learns best and time of day, subject areas, specific learning activities, solitary vs. group work, etc.”)

6. Supports the colleague in his or her construction of new learnings (“Over the course of the year together in the classroom, what has this child taught you?”)

7. Assists the colleague in his or her commitment to application (“As you go into a new situation, how will you apply your new knowledge?”)

8. Helps the colleague to reflect on the coaching process (“How has this conversation supported your thinking?” or “What has been most useful to you in this conversation?”)

Adapted from the work of the Center for Cognitive Coaching, 2916 W. Deer Park, Highland Ranch, Co. 80129

Making the Difference, 79
Figure #5: Student Analysis Instrument
There are numerous published student interest inventories that a teacher can use to get a quick “read” on the areas of interest represented in a classroom. These are particularly useful at the start of a new school year when a teacher may be faced with the daunting task of coming to know a relatively large number of new learners. One of the most student-friendly interest inventories that we know of is the Interest-A-Lyzer written by Joseph Renzulli (1997) out of the University of Connecticut. The Interest-A-Lyzer comes in versions specifically designed for primary, intermediate (middle school) and secondary (high school).

**Conclusion**

In closing this chapter, we would invite you to think back to the teacher you identified at the start of the chapter as having made an important positive difference to your learning. We would like to suggest that this teacher intuitively made a personal connection across two or three of these dimensions of knowing you as a learner. You are probably not the same person today that you would have been if you had not been taught by this individual. Such is the power of coming to know our students as learners.

While the goal of coming to know our students as learners is to support the teacher in designing and planning learning experiences that will provide an invitation to learning for all students and maximize access to the curriculum, there is another equally important objective. This is to support the student in coming to know him or herself as a learner. This is the gift of a lifetime. For as we come to know ourselves as learners, we can take control of the circumstances and influences under which we learn most effectively and efficiently.