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"In this effort, we will do well to respect the individuality of the child and the limits of our relationship as well as its power, while keeping in mind that our goal and purpose is to nurture the unfolding of each student's best potentials."

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# **Defining Student-Centered Education**

R room full of students is not the same as a room full of children. Typically when we consider a child as a student we have already narrowed our point of view. "Student" is a partial identity, occurring only in the context of classroom and education and leaving out many critical aspects of who the learner actually is.

In our more expansive view, however, a teacher gazes out on the rows of faces in a classroom and is immediately confronted with the fact that the children in front of her are highly active learning organisms. They are students of their world, passively and actively engaging in deliberate exploratory activities

"student-centered education reflects a perspective of the whole child" and acts of fancy and innate curiosity. These students take in learning and create meaning constantly, but their learning is not confined to the curriculum that the teacher presents. They are learning everywhere, all the time. Some of what they learn is healthy and some is not, but it is learning all the same, and it will influence who they are to become. They learn from and about one another, about

what it is like to be in a school, about whatever interests them most, about boredom, about excitement, about what is happening outside the window, about power and control in social relationships, about as well as from the teacher, and on and on. Learning happens willy-nilly and constantly and is by no means limited to the curriculum.

From our vantage point, an expanded view of what has been known in educational circles as *student-centered education* reflects a perspective of the whole child, while acknowledging that we, as educators, primarily address that aspect of a child that shows up in an educational context. Our vision of this concept recognizes a much broader framework for the learner's experience than what is outlined by curriculum standards and traditional education methods.

On hearing the term student-centered education, many people will have a pretty good idea of what it means to them. It will probably have something to do with a type of educational environment in which the child or student is the focal point of activity. And what other focus could there be, one might ask? Since it is the student who is being educated, where else would you focus? As it

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turns out, this is not nearly as obvious as we might hope or imagine. In many learning environments, the focus is not at all on the student, but on the teacher, the curriculum, the state test that will be given at the end of the year, the values of the institution providing the education, or the latest school reform mandated by the district, the state, or the federal government. Maintaining a studentcentered focus in many instances can be extremely challenging. In this paper, we explore a range of educational contexts and the challenges of creating or maintaining a student-centered focus in environments that do not seem to support or encourage that focus.

The field of education has typically used the term student-centered education to designate specific types of programming and pedagogical technique. Most often, it is applied to classroom activities in which the individual learner takes a great deal of responsibility for his or her own learning. In these settings, the teacher may organize activities and provide resources, but then takes on a coaching or facilitating role as students work cooperatively to solve problems, construct their own meaning, and generally direct their own learning. There is a wide range of how such environments operate and the extent to which teachers in them direct learning activities.

Other closely related terms include *child-centered*, which is used interchangeably with student-centered; *cooperative learning*, in which students work together and learn from one another as well as from the activity and the teacher; *project-based learning*, in which students learn by completing activities

that involve problem-solving and self-direction; and *experiential learning*, in which learners engage in carefully planned activities that become the vehicle for learning. When well and appropriately implemented, classrooms that emphasize these brands of student focus can be lively, stimulating, and very effective environments for learning. The problem is that these terms typically represent just one set of techniques. These techniques are useful when applied in appropriate settings. However, what works in one setting may be completely out of place in another. What is appropriate for very young learners will not work

"what works in one setting may be completely out of place in another...context in education is critical" for more developed individuals. What works for an adolescent suffering from depression may not be the same as what works for an individual with ADHD. Context in education is critical. To ignore context and attempt to apply a single set of solutions across the board is a recipe for failure. Learners and learning environments are immensely varied and are best served by educators who comprehend and appreciate the highly complex nature of learning.

To conceive an approach to education that is truly student-centered, it is necessary that we expand our thinking and our use of language. To be truly student-centered, we must appreciate the uniqueness of each learner and develop an attitude of openness and flexibility of mind that allows us to be deeply attuned to what is in each child's best interest educationally. To be effectively student-centered, we must recognize that the child is whole and complete beyond any influence of ours. In this effort, we will do well to respect the individuality of the child and the limits of our relationship as well as its power, while keeping in mind that our goal and purpose is to nurture the unfolding of each student's best potentials.

# A Continuum of Educational Settings

To organize our thinking about the ways in which various educational practices embrace the notion of a student-centered education, it is useful to imagine a continuum with the least directed, most learner-driven forms of education at one end, and the most ordered and authority-directed forms at the other. It is helpful to our thinking to have an appreciation for the many varieties of educational practice, some of which may be appropriate for one type of learner, but ineffective for another. We present such a continuum with the purpose of creating a broader context for understanding what it means to be student-centered.

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The world of education is widely varied and full of options. Schools, districts, and individual classrooms offer learning experiences in many forms, based on a range of philosophies and understandings of what makes for quality schooling. Not only what is taught, but how to teach and what constitutes essential learning, are topics that are actively debated in public dialogue at all levels.

The universe of educational practices can be organized and viewed in many dimensions. Placing different approaches along a scale using the concept of student-centeredness is a particularly helpful way to conceptualize what goes on in classrooms and other learning environments. From there we can proceed to consider what may be best for an individual learner. Here we present a general catalogue of educational styles and philosophies ranging from selfteaching on one end to military schools on the other. What varies as we move along the scale is the extent to which the practice is designed around the individual learner's needs, learning style, and developmental stage as opposed to the goals of the institution, the teacher, or the philosophy.

# **Self-Teaching**

To begin, it is worth noting that a great deal of what we learn is selftaught. We learn through modeling, observation, trial and error, and pattern recognition, and we do all these things with or without the help of others. As evolving humans, this is what we do. As many philosophers of education point out, we are hungry for learning and will naturally develop many important skills and realms of knowledge with no more than the slightest nudge from those around us. In a very true sense, we are students of our world, exploring, problem solving, and acquiring knowledge and understanding every minute of every day. Even in the presence of excellent teachers, it can be

"it can be argued that all learning is selfgenerated, since nothing can be accomplished without the learner's participation"

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argued that all learning is self-generated, since nothing can be accomplished without the learner's participation on some level. Furthermore, we should be aware of all the other things that are being learned when teachers are busy teaching. While teachers teach, students at all levels are also busy learning about each other, about their own experience of being in the learning environment, about the teacher, and about anything else that might capture their attention and therefore affect the growth of neurons and synapses.

Moreover, we cannot ignore the evidence of some of our most talented individuals, many of whom were self-taught in the area of their genius. In fact, almost by definition the true genius is always self-taught in that his or her talents out-strip those of even the greatest teachers. Self-teaching may not be considered a practice or a philosophy, but any discussion of teaching and learning that does not reflect its importance does little justice to the wonderful capacity for development and evolution built into the human brain and body.

# Self-Organizing Learning Environments (SOLEs)

When most of us think about education we assume the presence of at least one teacher and one student. More often, we imagine a teacher and a room full of students, the classic and ubiquitous model with which we are all familiar. Who of us imagines a room with no teacher? One answer to that would be Sugata Mitra, an education researcher from India who has done remarkable work in an unusual line of thinking. He has made it his business to investigate a very difficult question: What can be done to educate children in the many places in our world where teachers cannot or will not go? The question itself makes us stop and examine our assumptions. How could there be a classroom with no teacher? What would it be like? What could possibly happen in such a situation?

"children who caught on more quickly would proceed to teach others" Dr. Mitra began his search for answers by performing a very simple experiment. He went to a slum in New Delhi and arranged to have an internet connected computer installed in a brick wall on a public street, along with a hidden camera that recorded the activity at the wall. This is now known as the hole-in-the-wall experiment. What the cameras showed was that groups of children of all ages soon gathered around the computer and without any other intervention, learned to access

the internet. It also showed that those who caught on more quickly would proceed to teach others. This experiment was subsequently replicated in numerous other poverty stricken and remote environments. Based on this research, Mitra developed the concept of *minimally invasive education*.

Building on the hole-in-the wall experiments, Mitra later developed what he termed *self-organizing learning environments*. These were simple structures providing computer and internet access to groups of 4-5 students. Says Mitra, "My work with self organized learning by children shows that groups of children can learn to use computers and the Internet to answer almost any question.

This happens everywhere and is independent of what language they speak, where they live and how rich or poor they are. All they need is free access and the liberty to work in unsupervised groups. The most effective group size seems to be 4-5 children."<sup>1</sup> He goes on to say that such learning is "activated by questions, not answers," and that the children "who use these computers seem to be scoring higher in English and mathematics. It was also established that they could pass a government examination in computer science on their own."<sup>2</sup>

This is pretty impressive stuff and ought to arouse a sense of wonder and humility regarding the strength of our species' ability to learn and the complexity of what it means for adults to provide an education to our children.

Mitra's version of student-centered education is not only studentcentered, but student-driven. It represents an extreme on the continuum that should cause us to question some of our assumptions about education and learning. As we move along the continuum we will see the focus on the child and his or her activity decreasing as the focus on adult beliefs and methodologies increase. In the next section we look at programs that are also founded on the belief that children can largely create their own learning, but do so in an environment organized and managed by adult educators.

# **Constructivist Programs**

Scientific observation has established that education is not what the teacher gives; education is a natural process spontaneously carried out by the human individual, and is acquired not by listening to words but by experiences in the environment. The task of the teacher becomes that of preparing a series of motives of cultural activity, spread over a specially prepared environment, and then refraining from obtrusive interference."<sup>3</sup>

This is Maria Montessori writing about her research and the methods she created working in poor sections of Italy in the early 1900s. It is a statement that expresses a basic attitude about the natural talent for learning possessed by children everywhere, which is also echoed by other 20th century educators including Jean Piaget, Lev Vygotsky, and John Dewey. While all of these

researchers agree with Sugata Mitra's basic premise that children can learn effectively with minimally invasive interference, they differ in defining the role of the teacher.

While Mitra explores the extreme situations where no teacher is available, constructivists emphasize the capacity of the child to learn when provided with an environment, resources, and activities organized in such a way as to maximize the learning experience. Montessori, in particular, gives very detailed instructions on how to implement her approach. Her "handbook" includes pictures of apparatus she created for use in her carefully designed classrooms, called "children's houses", along with very specific instructions describing the teacher's role. Take, for example, the following detailed

"environment, resources, and activities organized in such a way as to maximize the learning experience" discussion of how a teacher should behave when a difficult student begins to take interest in one of the many carefully designed learning materials placed in the children's house.

"When the child begins to show interest in one of these, the teacher must not interrupt, because this interest corresponds with natural laws and opens up a whole cycle of new activities. . . . The teacher, now, must be most careful. Not to interfere means not to interfere in any way. This is

the moment at which the teacher most often goes wrong. The child, who up to that moment has been very difficult, finally concentrates on a piece of work. . . . Praise, help, or even a look, may be enough to interrupt him, or destroy the activity. It seems a strange thing to say, but this can happen even if the child merely becomes aware of being watched. . . . The great principle that brings success to the teacher is this: as soon as concentration has begun, act as if the child does not exist. . . . The duty of the teacher is only to present new things when she knows that a child has exhausted all the possibilities of those he was using before."<sup>4</sup>

This description of how an effective teacher operates is very different from our typical notions. Here the teacher's role is to make learning experiences available, to keep the environment attractive and interesting, but not to interfere when students begin to focus. At other points, however, it is clear that the Montessori teacher is expected to provide lessons and to guide classroom activity. While there is a great deal of emphasis on a non-invasive approach, this is a far cry from an environment which has no teacher. It is also radically different from one in which the focus is on the teacher and the curriculum.

There are many variations on the constructivist model. Many of these can be found in varying degrees in traditional classrooms and in programs that do not carry the Montessori label or those of any of the other originators of constructivist theory. The basic ideas that are essential to these approaches are:

- Learning through doing rather than through instruction;
- Harnessing the child's innate drive to master tasks and new information;
- Providing learning experiences appropriate to the child's developmental level;
- The role of teacher as facilitator of learning rather than conveyor of content.

# **The Traditional Classroom**

We have now visited two very different environments that challenge our popular notion of what it takes to provide a "good education". It is time to enter a traditional classroom and explore some of the differences. The image of a traditional classroom is familiar to anyone with a modern education, and it often defines the limits of what we consider when we think about schooling. Let's take a look.

We enter a medium sized, architecturally uninteresting space. At the front of this room there is a black, white, or smart board. The person standing near the board is the teacher. Somewhere to the side is the teacher's desk. It is

small to medium sized, industrial, no frills, except whatever has been added by the teacher. In most of the rest of the room, students sit in rows in smaller desks, in chairs of a type that are rarely found anywhere outside of schools. The teacher's desk, though not large, is likely to be at least three times as large as the students' desks.

As the teacher speaks, students listen. Students raise their hands when they wish to speak. Through the act of raising a hand, a student may or may not be given permission to speak. If there is any discussion it is directed by the teacher. The teacher provides information through words and students learn by taking these in, sometimes writing them down. Visual material, mostly on the black/white/smart board, may be used to illustrate the words that are being spoken.

"a standard classroom can be a dismal place for all, or a place of excitement and challenge" Stripped down to essentials, this is the basic image of a classroom with which we are all familiar. At its best, when students are actually listening and learning, and when the teacher is truly enthralled with the subject and the experience, the effect can be magic. We have only to consult our popular culture to recognize what this scene can produce in our imaginations, at least. Think of <u>To Sir with</u>

<u>Love</u>, or <u>Stand and Deliver</u>, or even Professor Dumbledore speaking at Hogwarts. Greatness in teaching is possible in such a setting.

On the other hand, we know equally well that there are other possibilities and that reality usually falls far short of the ideal. In the worst of cases, a classroom can be lifeless and boring, or even downright dangerous. Students can be highly disrespectful, uncooperative, unmotivated, threatening, even assaultive. Teachers can be woefully out of touch with even the best of students, so that these students lose their motivation, at least for the duration of this class period. A standard classroom can be a dismal place for all concerned, or a place of excitement and challenge.

It is not the environment itself that makes the difference here, but the teacher. In this classic image of education, the teacher is literally front and center, and what happens largely depends on her or him. Every day there are teachers in traditionally organized classrooms around the world who make the most of their environment by arranging for their students to be deeply engaged in their own learning experiences. Some do it by bringing constructivist techniques and concepts into their classrooms; some do it by having such a fascination and ability to present their subject matter that students become fascinated as well; some do it by being charismatic, so that students want to learn from them and please them; and some do it with a thorough grasp, whether conscious or intuitive, of the learning process and how it manifests in each of their students.

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In the methods of most effective teachers there is a set of basic principles at work However this may be, we must note that there is nothing inherently student-centered in the organization of a traditional classroom. The focus is on the teacher and on the information to be passed from the teacher to the student through words.

• So, what is the role of student-centeredness in a traditional classroom? In the hole-in-the-wall

we saw an environment that was not only student-centered but student-driven; in constructivism, an environment that was student-centered, but organized and managed by a teacher. Is it possible to bring a student-centered perspective to a traditionally organized classroom?

Certainly, and we would argue that most great teachers in traditional classrooms do just that. In the methods of most effective teachers there is a set of basic principles at work that clearly reflect the perspective that the activity of teaching is primarily, if not entirely, for the benefit of students and must therefore be adapted to the needs of those students.

Beginning with this seemingly obvious premise, that a good education is for the benefit of the learner rather than the teacher or the district, there are several other principles that fall in line. In order to ensure that classroom activities benefit the learner, the teacher must have a deep appreciation for the wonder of learning, the uniqueness of each learner, the great variety of ways in which people learn, and the equally great variety of ways students express their

"a teacher must have a flexibility of thinking and a willingness to treat each student as a new, uncharted experience" e equally great variety of ways students express their intelligence. In order to create a student-centered focus in a traditional classroom, a teacher must have a flexibility of thinking and a willingness to treat each student as a new, uncharted experience. While great student-centered teachers maintain wellorganized classrooms, managing and directing the physical and social qualities of their classroom, they do so with openness to the unique challenge that every new student brings. To be a student-centered teacher means to be a connoisseur of the variety of human learning.

Despite the differences among Mitra's formulations, those of constructivist educators, and those of student-centered educators in traditional classrooms, it is clear that each of these keeps the child and the learning process at the center of their thinking. It is ironic, then, that in the same early 20th century time frame in which Montessori and others were developing very child-centered techniques, the vast energy in public education was moving in a completely opposite direction. At this time there was a drive towards educational models based on the principals of mass production assembly lines, where efficiency and cost control are essential to doing business successfully.

Educators in the early twentieth century, represented notably by Ellwood Cubberley, were deeply interested in creating schools that educated with the same efficiency that the industrial revolution had brought to the factory system of production. US educators in particular were focused on the challenge of providing public education to the children of immigrants as well as those of established citizens. The goal was to create productive workers who understood

democratic values and who had the knowledge and skills to contribute to national productivity. The method and philosophy were based on principles of industry that at the time were thought to be the best and most modern innovations for creating efficiency in education. According to Cubberley, schools were to be "factories in which the raw materials (children) are to be shaped and fashioned into products to meet the various demands of life. The specifications for manufacturing come from the demands of twentieth century civilization, and it is the business of the school to build its pupils according to the specifications laid down."<sup>5</sup>

This approach was considered scientific and based on theories of social efficiency. It was "predicated on three main concepts; (1) The School as Factory, (2) The Child as Product and (3) Standardized Testing as Quality Control. The child was thought of as a piece of raw material to be shaped by the educational 'factory' into a quality 'product'. Teaching became viewed as a form of training and schools were expected to operate more like assembly lines, working on children as they passed through various stages of the curriculum."<sup>6</sup>

While we have come a long way in the past 100 years, it would appear that some aspects of our thinking have not changed. The pressure to raise test scores and to compete with other countries generated by the 1983 publication of A Nation At Risk has led us in directions that decidedly do not keep students at the center in our focus. In particular, the recent wave of school reform enacted as law in the US in 2001 under the mantle of No Child Left Behind (NCLB), mandates that all public schools make Adequate Yearly Progress demonstrated by raising scores on standardized tests. At the core of this reform is the basic notion that schools can be improved by setting top-down productivity goals that must be met in order for the school to stay in business. Under NCLB, teachers, schools, and districts are to be held accountable for their students' progress, as measured by standardized tests. In this industrial model, management (federal and state government) sets expectations, and workers (schools, principals, and teachers) who do not measure up are to be punished. In its original form, NCLB mandates that schools that don't show Adequate Yearly Progress will be subject to a series of federally prescribed

corrective actions. If things continue on the path of little or no improvement, the corrective actions become more and more invasive. Ultimately the school may be closed, turned into a charter school, run by a private organization, or turned over to state officials.

Inevitably, this puts pressure on teachers and schools to raise test scores at all costs. Unintended results range from relatively benign, but educationally unsound, practices like "teaching to the test" to seriously fraudulent activity, such as manufacturing false results. The latter case was demonstrated dramatically in the Atlanta schools scandal in which teachers admitted to changing test scores in order to meet the demands of the school superintendent. In the words of Dianne Ravitch, former Assistant Secretary of Education under President George H. W. Bush, the "simpleminded and singular focus on test scores distorts and degrades the meaning and practice of education."<sup>7</sup>

In the terms of this discussion, NCLB puts the focus in the wrong place. Well-formulated standards are of great use in creating a collective vision of what a good education should include, and of course it is incumbent upon any good teacher to have a thorough mastery of his or her area of expertise. However, when curriculum standards are reduced to scores on multiple choice tests, the ideals of quality education are narrowed in the extreme. The current emphasis on high stakes testing and government mandates is a huge distraction for teachers that takes their focus away from the individual skills, talents, and needs of their students. The emphasis in NCLB is not on quality education but on standardization and accountability. It is difficult to find anything in the law that is truly student-centered. Though it is certainly intended to benefit children, it does not speak to the individuality of learners, or to the individual skill and creativity of teachers. Instead it mandates progress and prescribes punitive action when adequate progress is not achieved.

So, we currently live in a political/educational context that does not promote a student-centered perspective. In this environment there are still wonderful teachers who maintain a student-centered focus even as they deal with government mandates. However, without the resources, class size, facilities, and community vision to support this focus, teachers are often alone

in their efforts to discover and implement effective educational practices. There is nothing in the philosophy underpinning our most recent reforms that would suggest a student-centered focus.

# Variations on the Traditional Model

There is tremendous variety in the many types of schools that are not in the mainstream of public education, but represent variations on traditional educational methods and models. A wide range of private schools, vocational schools, and exam schools offer programs geared towards students with particular interests and talents or parents who desire a different learning environment for their children. While many of these schools differ from the mainstream in the focus of their curriculum, the rigor of their offerings, or the needs of their population, it is difficult to generalize about the degree to which these represent a student-centered approach. Some private schools, for example, may be deeply immersed in constructivist thinking, while others are just as deeply committed to no-nonsense, teacher centered delivery of traditional college preparatory material. It is of great interest to note, however, that once we have defined what it means for a teacher or a school to be student-centered, we should be able to look at any of these schools or classrooms and clearly describe where they fit on our continuum of studentcentered education.

But what about the variety among the students themselves? Thus far we have examined educational models intended to serve the mainstream of student populations. We have established that each learner is unique in his manner of learning and of expressing what he knows. Within the population of any classroom there is immense variety. However, there are reasonable limits to the degree and types of variance that any teacher can be expected to manage effectively. There are cognitive, emotional, and developmental differences that stretch beyond the capacities of any single classroom. Consider developmental differences. These are easily recognized and understood. For example, most of us would think it inefficient to teach first graders, eighth graders, and twelfth graders in the same classroom. While there might be some value in such an

exercise, it does not provide an effective model, and certainly does not help us to attend well to the needs of individuals in the class. Students might learn something in such a setting, but it would be very different from any of our standard curricula. Similarly, teaching a group of students who have widely varied cognitive skills in the same class may not lead to high levels of success for students at either extreme. Inclusion is a well-intentioned idea, but anyone who has worked with the degrees of variation in ability and motivation often found in a typical public school will recognize clearly that inclusion has limits. To be truly student-centered we must be thinking about what is best for the child and not treat inclusion as a sacred cow. IDEA, the Individuals with Disabilities Education Act, is a law that cuts both ways. By mandating that students with special needs be given an appropriate education in the least

"inclusion is a noble and well intentioned idea...that has appropriate limits." restrictive environment in which they can succeed, the law recognizes both the desirability of students achieving success within or near the mainstream and the fact that for some students an education outside the mainstream will be more fruitful.

Consider, also, the range of emotional functioning and the ability of students to be selfregulated. Expecting all students to function within certain "normal" limits does not benefit anyone.

Students with greater emotional needs are best served in settings that offer them the level of support they need. A student-centered approach in this case would involve providing the dysregulated student with a setting that has the knowledge and resources to effectively program for her needs. This point is made clearly by Ellie Herman, a Los Angeles teacher, in an Op-Ed in the LA Times newspaper.<sup>8</sup>

"The kid in the back wants me to define 'logic.' The girl next to him looks bewildered. The boy in front of me dutifully takes notes even though he has severe auditory processing issues and doesn't understand a word I'm saying. Eight kids forgot their essays, but one has a good excuse because she had another epileptic seizure last night. The shy, quiet girl next to me hasn't done

homework for weeks, ever since she was jumped by a knife-wielding gangbanger as she walked to school. The boy next to her is asleep with his head on the desk because he works nights at a factory to support his family. Across the room, a girl weeps quietly for reasons I'll never know."

No teacher, no matter how extraordinary, could be expected to provide an optimal education in such an environment. Here we have crossed over into a new area of challenge for student-centered thinking. For some students, it will be incumbent on the adults in charge - parents, teachers, and others - to make some critical decisions and to direct the student toward a successful educational experience. The responsibility of the adults in these cases is great. An emotionally vulnerable child may not be a reliable source for determining his own best interests. Left to her own devices a traumatized or unstable child may make many unhealthy and dangerous choices. There comes a time in most children's lives, but more so in those with emotional challenges, where the adults need to step in and provide the structure and safety a child will need in order to overcome unfortunate circumstances. We reach a point of paradox on our continuum of educational formats where in order to be student-centered we may need to impose structures and limits that the child himself would not choose. To be student-centered in education does not mean to abdicate adult responsibility.

There is a range of alternative schools within schools, substantially separate schools, therapeutic day schools, residential schools, specialized private schools, and schools with intense behavior modification programs that may be of immeasurable value for appropriately identified students. In most such settings, the level of adult supervision and adult decision-making will be great when compared with the mainstream. Creating a healthy studentcentered perspective will take on broader significance, including clinical and emotional concerns not necessarily under consideration in mainstream environments. This level of intervention, like other elements of the curriculum, can be applied in a student-centered manner when the needs and potential of the child are understood and respected. The structure of a classroom in such a setting may appear more controlling when compared with the constructivist or

engaged traditional classrooms discussed previously. Yet a true understanding of certain children's needs will lead unavoidably to the conclusion that a student-centered approach will sometimes recognize the need for a high degree of structure and consistency, with lots of adult intervention.

# **Faith-based Schools**

No survey of the continuum of student-centered education would be complete without addressing two common types of schools that are radically different in their approach to children from any of the models so far presented. In faith-based and military schools we encounter two very different conceptions of the role of education in a student's life. In both cases there is an essential and openly professed drive towards uniformity and the cultivation of adult values. The individual appears to be secondary to the mission.

There are, of course, many types of faith-based schools, and many of these work with students in caring, supportive, and effective ways. However, in any school that bases its teachings on religious doctrine, the primary goal of education will not be the flowering of individual potential, but the inculcation of moral and spiritual values considered vital by the religion. Essentially, all faithbased programs have in common this goal of preserving a core set of values, and the spiritual and personal growth of the individual will be seen to rely on the development of these values. Faith-based schools may be chosen by parents for many reasons which are not fundamentally religious, but in most cases, the choice is still related to values, behaviors, and practices that parents consider desirable. In this country, where Catholic schools are the most common form of faith-based school, the choice may have little to do with Catholicism per se and everything to do with discipline, order, and adult authority. But whether chosen for religious reasons or not, the teaching of values will be found at the heart of faith-based education. Take, for example, the following core value statement of a Catholic high school in Massachusetts: "Preserving a strong Catholic identity by providing a -based education aiding students to see themselves as stewards of the life they live and promoting the values of community and service."9

Nothing in this discussion is intended as a criticism of schools with a religious orientation. Rather, the point is an analysis of how such schools fit into our continuum of student-centered education. A thorough exploration of faith-based schools would certainly reveal a wide range of educational philosophy, with some programs being far more immersed in doctrine than others. As a whole though, religious education is fundamentally focused on the traditions and moral imperatives of adult belief systems, not on individual learners and their differences. As such, it must be placed on the less student-centered end of the continuum.

At the same time, just as it is possible for individual schools and teachers to be more or less student-centered in their presentation of a standards-based public education, it is certainly possible for teachers in faithbased schools, and in fact whole schools, to have a student-centered awareness and approach within the conceptual framework of a religious education. It is possibilities like this that lead us to give careful consideration of what it means to be student-centered and to broaden our definition.

# **Military Schools**

Military schools must be considered to be the least studentcentered brand of educational practice. The value of a military style education for some students is well established and recognized by even liberal educators. The inculcation of discipline, the value of giving oneself to a greater cause, the development of a selfless world view, the push toward excellence and achievement at a high level, all of these have great appeal and may be shown to be highly effective when paired with a population of students who are well equipped for this style of learning. Attempts have even been made to adopt military education to public school settings. Hugh Price, senior fellow at the Brookings Institute, has been a major supporter of these approaches. Having observed in his own youth that peers who had little discipline in high school emerged from a few years in the armed forces "ramrod straight and full of purpose",<sup>10</sup> he wondered if this form of education could be brought to bear on at-risk populations in public schools. Experimental programs based on Price's

ideas have been created in several states and have shown some promise. There are objections, however, including the concern that such schools could become recruiting grounds for the armed forces. In addition, even staunch advocates of military schools make it very clear that military education is not for all and may, in particular, be a poor match for teenagers with emotional challenges: "While military schools are wonderful for stable teenagers, they may only pose further problems in the progress of a struggling teenager."<sup>11</sup>

Here again we are faced with the futility of establishing a one-size-fits-all model. There are certainly features to be acknowledged and respected in the fast track, highly organized methods of military education. Like the factory system, the military model runs on very clear procedures that can be replicated on a large scale. Yet there are few who would maintain that military schooling would be effective or wise when applied across the board.

As an institution, military education is decidedly not student-centered. Individuality is discouraged and "service before self" is the premiere value. In other places along the continuum we have explored the role of the teacher and his or her capacity to be student-centered even in contexts that do not have the individual learner as a central focus. Is it possible for an individual instructor or officer in a military school to be student-centered? We suspect that many who have been through military training in schools or in the armed forces can cite instructors who accomplish this regularly. In fact, using popular media and literature as an indicator, one would have to make the assumption that tension between following the dictates of military discipline and hierarchy while appreciating and allowing for individual talent and idiosyncrasy is a common and sometimes wrenching theme of military style training. Examples of this in popular culture are everywhere. Take, for example, the classic conflict in the Broadway play and subsequent movie Mister Roberts, in which Executive Officer Roberts constantly struggles to treat his crew with humanity and respect in the face of the unreasonable demands of ship Commander Morton, who is obsessed with his command's perfect record for punctuality and efficiency. As a metaphor, this conflict represents well the challenges of student-centered

educators in all kinds of institutions where the goals of the institution take precedence over the needs of the student.

# **Key Characteristics of Student-Centered Education**

With this, we have completed our survey of the continuum of student-centered education. We have seen that learning is a complex and natural process that occurs with or without our intervention, that all forms of education can be classified in the dimension of studentcenteredness, that all forms have their value when offered to appropriate students and that current trends in American education are not fundamentally student-centered, but that it is possible for individual educators to bring a student-centered practices to any educational context.

Student-centered education, as defined here, is not a single technique or a single model. Rather, it is a set of attitudes, skills, and considerations that affect the way an educator or school will approach learners. It recognizes the individuality of each student and, by extension, the primary importance of the relationship between learners and teachers. The impact of relationship on learning is of such importance across all types of educational practice that it will be useful to briefly explore its critical role before completing this discussion.

# **Relationships Are Critical for Success**

Consider the connection between relationship and self-teaching. At first glance this will appear to be a contradiction. It would seem that self-teaching is, by definition, outside the realm of relationship. Of all our categories it is the least dependent on adult guidance. On further inspection, however, we discover that the very nature of learning is deeply affected by relationship at the fundamental level of brain development. As reported by Bruce Perry and Maia Szalavitz in their book <u>Born For Love</u>,<sup>12</sup> the ability of a child to access higher level problem solving, executive functioning, and thinking skills ultimately depends on the learned ability to self-regulate, and these

capacities are developed through consistent and reliable connection with safe and caring adults. In simple terms, it is the care and protection of adults that allows infants and children to develop neural pathways in the frontal lobe that transcend the more primitive flight/fight/freeze mechanisms of the limbic system. In the early years in which brain development progresses most dramatically, the neural pathways for higher-level cognition are grown within the safety provided by adults. The absence or chronic disruption of these connections is traumatic and leads to atrophied brain development that can actually be observed in the physical size and activity of the brain in later life. Notably, the ability to manage stress effectively and to master the physical and social environment can be significantly compromised as a result of chronic trauma. It is these higher-level capacities that are the foundations of our ability to learn, to construct meaning from experience, and to self-teach. Our ability to learn independently relies on the normal and healthy development of our brains and bodies, which in turn rely on the support of caring and trustworthy adults in our most vulnerable and formative years. It is no stretch to submit that our ability to self-teach is generated in large measure through the history of our relationship with care-takers.

And what about Mitra's children, gathering without adult supervision, to explore the internet in the hole-in-the-wall experiments? In the absence of adult intervention, what is the role of relationship in this setting? Besides the obvious fact that this special learning environment has been carefully designed by Mitra and his colleagues, the preceding argument would suggest that all cognitive development is dependent on the influence of adult connection, even though the adults may not be present at the moment of learning. It is clear that basic safety is an essential condition for higher order learning and thinking. Whatever else may be happening in the lives of the children in Mitra's experiments, it is a reasonable assumption that in those moments they spend at the wall they have a basic sense of safety, without which learning would not take place. In one form or another, this sense of safety, however fragile it might be, is in large part provided by adults. A rather significant addition to this line of thinking is the fact that even Mitra, in designing the minimally invasive environments of his SOLE experiments, demonstrated that average student performance was

boosted from 30% to 50% by the simple addition of a young adult who did nothing more than encourage students and take notice of their progress. He terms this the "grandmother method", in which the adult present does not teach, but only offers encouragement at every turn. One could hardly ask for a more elegant demonstration of the impact of relationship on learning.<sup>13</sup>

The importance of relationship carries on through constructivist, traditional, faith-based, military, and non-traditional models. It is so fundamental, in fact, that it could be said that the ability to form positive and nurturing relationships with students is the sine qua non of a student-centered approach. The primary importance of relationship is also a well established factor in research on the development of resilience in children. Seeking to

"positive and nurturing relationships with students is the sine qua non of a student centered approach" identify the factors that allow some children to thrive despite traumatic histories, it has been repeatedly demonstrated that the one factor that can reliably increase the chances of a healthy adjustment is the presence of at least one connected and caring adult. This recognition has even found its way into some of our public policy documents. Consider, for example, the following statement from the Massachusetts Department of Elementary and Secondary Education.

"Possibly the most critical element to success within a school environment is a student developing a close and nurturing relationship with at least one caring adult. Students need to feel that there is someone whom they know, to whom they can turn, and who will act as an advocate for them."<sup>14</sup>

At the core of effectiveness in any student-centered model, then, is the willingness and ability of educators to form positive relationships with students. Given educators with this awareness and capacity, many educational environments that are not otherwise designed to be student-centered may take on a significant student-centered quality and may address the child's fundamental learning needs at a deep level.

# **Supporting Student-Centered Teachers**

Finally, a critical element of a student-centered approach is a keen sense of context and boundaries. We began this discussion by observing that there is more to a child than her identity as a student. The whole of what is learned is much greater than what is taught, what is tested, what is addressed in curriculum, and what may be in any teacher's plan book. Notably, the Whole Child Initiative (ASCD) takes this notion seriously and recommends to schools that education should be about nurturing the growth of the learner as a complete individual, not just as a vessel for curriculum. This aligns well with our beliefs about what it means to be student-centered. It does, however, raise an important question: as educators are we responsible for the development of the "whole learner"? Are we not limited in the scope of our teaching by the inevitable and appropriate boundaries of our role in the lives of our students? The realization that our context is circumscribed is critical to our understanding of our students and the nature of what we offer them. As educators we each have a role to play in our students' education, and we do our best work when we understand these roles. We recognize our students as whole beyond our classrooms while appreciating both the value of the knowledge we offer them, and its limitations. Among other things, this means collaborating effectively with colleagues and, most importantly, with our students' parents.

In this discussion we focus on the student-centered teacher because the most crucial interaction in education happens between the learner and the teacher. However, none of this happens in a vacuum. Teaching is intense work and few can maintain a healthy relationship with their students without the support of others. They say it takes a village, but it is not only the child who needs the village; any teacher will be more effective if he is also part of a supportive community. One's colleagues and the environment in which one teaches are elements that cannot be ignored. Just as teachers may be more or less student-centered, so can whole schools.

Every school has a culture, and every child and teacher is deeply affected by that culture. In our conception, there is nothing more important to know

"every school has a culture, and every child and teacher is deeply affected by that culture" about a school than the degree of student-centered thinking present in the culture. Schools that have student-centered cultures support student-centered teachers, who then find it more natural to work in a student-centered manner. One would like to imagine that there could be a student-centered national culture of education, but that cannot happen when the focus is on test scores, and not on children.

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# Conclusion

What, then, are the characteristics of a student-centered thinking is an attitude and an approach that may be found in a range of educational settings. What, then, are the characteristics of a student-centered educator that may be present or absent at any point on our continuum? In considering this, we recognize that there are essentially two types of teacher characteristics, those that are intuitive and those that are learned. This mirrors our conception of the child. There are things the child can learn from teachers and things that will be essentially self-taught. As in the child, in the educator there will be talents and personal strengths that come easily to some, but are difficult to attain for others. In the end, however, the matter of whether a skill is innate or the result of long hard work will not be of primary concern. And this is good news. It means that the skills required to be effectively student-centered can be taught and learned, as well as intuited.

The following is a set of these skills and perspectives. It is by no means exhaustive, nor is it the only way this list could be formed. It is, instead, a beginning, a first attempt at defining a set of qualities that will identify a solidly student-centered educator.

1. A student-centered educator appreciates, through intuition or knowledge gained from study, the singularity and importance of each child.

2. A student-centered educator comprehends the vital importance of his relationship with children, while keeping in perspective the nature of his role and its limitations.

3. A student-centered educator has an understanding of developmental issues and recognizes that any educational approach must be well matched to the capabilities of her students.

4. A student-centered educator values the areas of strength in each child and seeks to nurture them.

5. A student-centered educator has an understanding of the context in which his teaching occurs and within that context has something of value to contribute to his students.

6. A student-centered educator has a deep sense of the joys and responsibilities of being a caring adult in the life of a child.

This, in simple form, is what it means to be a student-centered educator. For others it may be enough to know the book, to know the drill, to know the test, to know the system, to know what the administration expects. But the student-centered educator will manage all of this while saving her best energy for observing, appreciating, and considering deeply this one unique learner who sits before her, hoping to be understood.

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