

THE AUTHENTIC AMERICAN MONTESSORI SCHOOL

*A Guide to the Self-Study, Evaluation, and Accreditation
of American Schools Committed to Montessori Education*

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She was instrumental in establishing the Whitby School, Greenwich, connecticut in 1957, and organizing the first American Montessori Teacher Training Course in 1960. That same ear she founded the American Montessori Society. In 1975, Dr. Rambusch helped establish the first American Montessori public school program in Cincinnati, Ohio.

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Following an early career in public education, he joined the faculty of Lehigh University where he served many years as Dean of the School of Education and held the rank of Distinguished Professor of Educational Philosophy. He has provided leadership for a number of new educational enterprises and reforms including Lehigh's Centennial School which specializes in the education of students with emotional disabilities. He also established an Institute for Educational Evaluation which, among other things, operated a Center for the Study of Young Handicapped Children focusing on educational diagnosis and family planning.

In 1976, he began working with the Middle States Association to introduce elementary school evaluation and accreditation in the MSA region. this activity later spread to special education schools, overseas elementary schools, early childhood schools and Montessori schools. Subsequently, he helped establish the Associations' Commission on Elementary Schools and at the time of the original publishing of this work served as its Executive Director.

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NMR/JAS



SECTION ONE

THE ARGUMENT

1.1 THE QUESTION OF AUTHENTICITY

The legend of Maria Montessori now has a life of its own, and her fame as an educator continues to spread. Each year many new schools open which use her name as part of their name. This inclusion is much more than a tribute to her; it is also an implied advocacy of the principles and methods of education to which she and her associates were passionately dedicated. The name Montessori now stands for a particular kind of education. So rightfully, where the name appears the kind of education Maria Montessori developed and advocated must be offered.

However, a name cannot be copyrighted; neither can it be patented. Therefore, one may ask, "Is it possible for any American school which offers another kind of education to call itself a Montessori school?" "Can any school simply by purchasing a few Montessori didactic materials legally announce itself as a Montessori school?" Unfortunately, the answer to both of these questions is "yes." Since the law does not protect a name from being misappropriated, a serious dilemma is posed both for the public and for the great number of Montessori schools that do offer an authentic Montessori education.

The answer to the dilemma is self-study, evaluation, and accreditation. Among other things accreditation is a declaration that a school *is what it says it is and does what it says it does*. Thus does the accreditor confirm to the public and to other institutions that the use of the name is justified. There are many good schools that are not Montessori schools, which can be accredited for what they are. But these same schools cannot be accredited if they call themselves Montessori, and they are not. If a school uses the name Montessori in its title, or uses that name as a label for its offerings, it must demonstrate to its accreditor that these uses are warranted by the kind of education the school provides.

Determining the authenticity of a Montessori school requires study in depth. This is due to a growing popular perception that Montessori education is simply a form of American education dependent on such easily discernible descriptors as family grouping, mixed grading, the use of specific materials, and teaching as facilitative rather than expository. The fact is that a school can have all of these characteristics without taking on the distinctive characteristics of Montessori education. The school can offer the appearance and name but not the substance. One of the major purposes of this *Guide* is to help those engaged in accreditation activity to identify the required substance.

Accordingly, the authors, in consultation with others well versed in American Montessori education, have presented in this *Guide* the elements which can serve as basis for the accreditation of American Montessori schools. These elements are simply criteria for authenticity, they do not purport to be the totality of Montessori philosophy and pedagogy, nor do they deal with all aspects of her developmental schemata. This work purports only to guide a Montessori school in a self-study that is part of an accreditation protocol and to establish a process through which a school continues to improve even after its accreditation is attained.

Accreditation agencies are public trusts. As the education of American children becomes more and more a matter of parental choice, accreditation agencies such as the American Montessori Society and the Commission on Elementary Schools of the Middle States Association are responsible for standards that assure "truth in advertising." Their accreditation must respond to parents as consumers of educational programs and protect the schools that fulfill all obligations inherent in the labels they use.

1.2 THE AMERICAN MONTESSORI SCHOOL

Philosophically, Montessori shares a stage with other theorists of naturalistic tendency, all committed to a naturalistic belief that the power of children's learning exists within the child and proceeds from the child. In common with all of these theorists, Montessori perceives learning as an integral part of the child's being, not something that has an independent and disincarnated existence, outside the child. Drawing on their thoughts, Montessori regards children as constructing their own intelligences and their own morality.

She shares with Jean-Jacques Rousseau a belief that learning occurs best when it occurs at just the

right moment in the child's development. She shares with Johann Pestalozzi the conviction that learning is "natural," and proceeds in concert with the child's natural development. She agrees with Frederick Froebel that learning is essentially what the child does, not what is done to the child. Montessori shares with William James a conviction that learning is possible only when the child's attention is under habit, and with John Dewey a belief that learning is not merely experience, but, rather the particular "quality" of experience. At times Montessori uses terms that are different from those used by her co-believers. Educational naturalists do not have a common lexicon. For example, what Froebel calls self-study, Montessori calls auto-education. However, for all of them education begins within the child, not with knowledge, not with skills, not with predetermined beliefs. Education begins with powers and dispositions that are within the learner.

Despite the consistencies it is important to point out that none of these other educational naturalists is Montessori. Just as the progressive education of Dewey differs from the anthroposophic approach of Rudolph Steiner and the Pestalozzian view of schooling at home differs from the extra-familial group setting in Froebel's kindergarten, so does Montessori's naturalistic education differ from all others within this shared tradition. There are two groups of characteristics that set Montessori apart from others. The first group, those which deal with the educational procedures are identified in Section Four of this *Guide*. The second group, those dealing with the outcomes of Montessori education, are identified in Section Five. In regard to her educational procedures Montessori has unique insights of the child as a being and as a learner. As presented in section Four, these insights are organized in two stages. The first stage reveals the *infant and toddler* as an "unconscious creator," and the *early child* as a "conscious worker." The second stage reveals the child's development of *intellect and morality*. Through its curriculum, environment, and methods, the authentic Montessori school accepts these two stages as fundamental to school organization and method.

In regard to moral and intellectual outcomes, educational theorists of naturalistic tendency have faith that good in nature leads to good in humankind. If naturalistic processes are used in education, naturalistic morality is an anticipated result. Montessori's faith in this good-leads-to-good theory is as strong as any; but unlike most other educational naturalists, her faith is not blind. Montessori is specific about moral outcomes. Also like all other naturalists, Montessori believes intellect is a natural development. But just as she is specific about morals she is also specific about the intellectual outcomes to be anticipated of her educational doctrines. These particular moral and intellectual outcomes must be expected of any school that calls itself "Montessori."

These outcomes are presented in Section Five together with descriptors to help the school develop its narrative about them. This narration together with the narratives developed through Section Four, helps establish the Montessorian authenticity of the school.

1.3 THE GLOBAL AND THE AMERICAN MONTESSORI

To many conversant with her thought and work, Maria Montessori is seen as a global educator whose educational philosophy transcends national boundaries, and may be realized best through an education she described as "a help to life." However, the integration of Montessori education with any host culture results in a culture specific Montessori education. Thus, when Montessori education moves into American culture the result is an *American culture and an American Montessori education*.

The history of American Montessori education over the past three decades reveals both institutional complexity and variety. Once in America, Montessori's ideas were subject to translation from the side of the culture and to transformation within the culture. The early indigenous organizers of Montessori education in America always intended it to become an American phenomenon. Accordingly, they supported a broad variety of settings in which Montessori's insights could find

an identifiable place. Therefore, American Montessori education can occur in private, nonprofit and proprietary settings, public and parochial settings, as well as in day care centers, preschools and elementary school programs. To have formulated for all cultures and settings the irreducible set of operational "Montessori" propositions would have been a very useful thing for Montessori to have done during her lifetime. But this she did not do, choosing rather to rework her original insights as her thought developed and expanded. Montessori at eighty was a very different person from Montessori at thirty. She and her educational ideas evolved together. Much of Montessori's thought was communicated orally. Over time, her disciples differed in their interpretation of her thought. Typically, Montessori left the implementation of her educational ideas to others. This, in some measure, accounts for substantial doctrinal differences found among her followers.

American Montessori educational practice may be considered, much like American Judaism, on a continuum. The most orthodox practice emanates from Montessori's circle of European disciples, while the "reformed" practice, although proceeding from Europe, is indigenous in origin and assimilationist in intention. Some American Montessorians see the original San Lorenzo Children's House of 1906 as their model; others see Montessori's insights as more critical than the full panoply of her didactic materials. Montessori practices reframed by time, circumstances and culture are the *foci* of such Montessorians.

The authors of this *Guide* are among those who believe that the authenticity of Montessori's methods does not derive from an exact replication of every facet of her historical work, or from the work of those who implemented her ideas. Apart from believing that it is Montessori's principles rather than her specifically designed artifacts that are central to her pedagogy (Rambusch 1978), the "reform" Montessorians, among whom the authors count themselves, have no quarrel with the original orthodoxy.

Setting out the propositions that stipulate the justification of the name "Montessori" must forever be an anxiety provoking business. Realigning her thought, in light of those theorists who have come "after" as well as "before" her is no mean challenge. Reframing the propositions of any original thinker in light of subsequent intellectual and cultural events is the inevitable task of those who follow. Whoever laments revisionism can be consoled by the axiom: *Those not revised are those forgotten*. Authors who hand things on to the future are forever at the mercy of those who live in the future. The past can guide; but it cannot ordain.

The propositions used in this *Guide* as the basis for determining the Montessori "quotient" of an individual school setting and, hence, its American Montessorian authenticity, derive from a consideration of both Montessori's philosophy and pedagogy and the particular American context under consideration. (As new insights emerge, they will be incorporated into subsequent editions of this *Guide*.)

1.4 USE OF THIS GUIDE

The overall purpose of this *Guide* is to serve as support for those engaged in a *concept-based outcomes-oriented self-study and evaluation* of American Montessori schools. Specific instructions on this are presented in Section Two. Sections Three, Four, and Five show the way to assemble the elements of the triadic entity concept of an American Montessori school that includes evaluative judgments. Section Six shows how an action concept of the school is formed and expressed. It also shows how this concept is then used to evaluate the various parts and synergies of the school and how this leads into the process of strategic planning.

Sections Three, Four, and Five have proven to be straightforward. Apart from being able to heed the authors' plea for brevity, the pilot schools reported few, if any, difficulties in their use of these three

sections. For some, Section Six has proven to be a little more daunting. This is because the authors chose to present theoretical underpinnings and new language for the activity called for in that section.

This was done because the authors are aware that, in addition to guiding schools for self-study, this *Guide* will be used for training evaluators who will work in a variety of situations. Therefore, they will need a theoretical background which will enable them to devise evaluation procedures to fit the various situations they will confront. This requires them to control the process at a theoretical level as well as a practical level.

However, for those who use this section for self-study only, it is well to remember that Section Six simply explains what talented evaluators have, over many years, learned to do on their own. It boils down to three essentials:

Form an *action concept* of the school.

Use that concept to judge how well the parts and operations (synergies) contribute to the action.

Report accordingly.

Some readers will ask: Why are new terms (or terms new to educators) introduced? Why are readers confronted by words such as "environmental press," "synergy," "entropy," etc. Why are references made here to triangulation and the mathematics of the quantum? The answer is *we are on our way into a new science*.

Early in the Twentieth Century it was established that energy (and the way it behaves) is the fundamental reality of the universe. If there is something more fundamental, it remains yet to be found. In the decades that followed this advent of energy physics, all of the physical science disciplines changed their methods and knowledge systems. Midway through the Century the life sciences made similar changes. The word ecology took new meanings. Physical environments became paradigms. Now, nearly one hundred years after discovery of the quantum, the social sciences are beginning to respond.

It is always a struggle to use our ordinary language to talk about new things. Only gradually do we adapt and, by some mysterious process, accept new terms. Herein, we simply "borrowed" language from the physical and environmental science disciplines to get at the energy of a school in a better way than we have been able to in the past. It is precisely the business of science and philosophy to create better linguistic tools for the handling of new lines of inquiry. Defining a school as a *universe of energy* and finding ways to study it and evaluate it as such is a new line of inquiry, and we are beginning to provide a language for it.

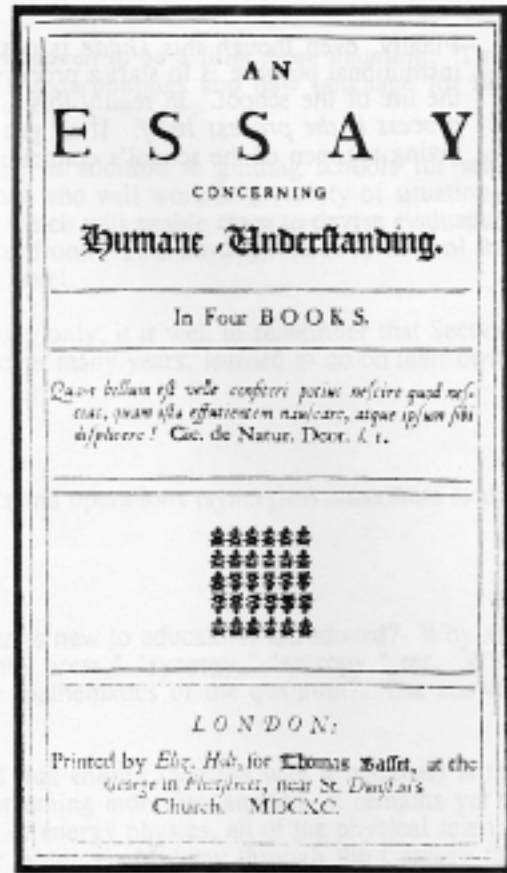
But the self-study users should not be daunted by either the theories or the terms of Section Six or of the Notes that follow. In Section Six they simply convert the entity concept that emerges from the school's work on Three, Four, and Five into an action concept and then look at the various parts of the school to see how each supports the action. If the theoretical justifications offered herein are of interest, well and good; if not, then well enough.

Section Seven is a guide to *strategic planning*. Strategic planning is now recognized in all sectors of the American institutional order as the way modern institutions create their own future. It is now a requirement for accreditation of any elementary school by the Commission on Elementary Schools of the Middle States Association. The strategic plan that grows from the faithful use of this

Guide will shape the future of an American Montessori school as an authentic American Montessori school.

Finally, even though this *Guide* is designed as part of an accreditation protocol, its larger institutional purpose is to start a process that will continue indefinitely as an important part of the life of the school. In reality this *Guide* creates a process. The *important product of that process is the process itself*. If all goes as hoped, the process will go on and on as a health giving regimen of the school's continuing life.

2



SECTION TWO

*Title Page of John Locke's
1690 Treatise on Human
Understanding*

ORGANIZATION AND DEVELOPMENT OF THE SELF-STUDY

2.1 IMPORTANCE OF GOOD ORGANIZATION

What a difference good organization makes. Go to a restaurant, an amusement park, a dry cleaner, or even a school; and the first thing that greets you is the quality of the organization. If it is good, positive attitudes surge. There is a feeling of being in the right place, that people know what they are doing, that your problems will be solved; there is competence; and there is control.

If that is not convincing enough think about the response anyone has to poor organization. How do students behave in a poorly organized school? A poorly organized classroom? Confusion and uncertainty invite distraction and derision. The confidence needed for coherent learning experience never develops. Students enter into the confusion; some are pleased to help it grow. A poorly

organized post office or airport terminal can be briefly endured, but a poorly organized self-study process is not redeemed by brevity. Self-study involves many people for a number of months. So it is well worth whatever time it takes to organize well; and among other things, this requires understanding what kind of authority is needed to establish and manage a self-study protocol.

2.2. GOVERNANCE OF THE SELF-STUDY

Some argue the three most important words of the U. S. Constitution are the first three: *We the People*. Those three words are the only words of the Constitution not subject to amendment and they reflect the source of authority for all that follows. The authority of American government is, *We the People*.

Self-study is a form of school improvement activity which takes its authority from *We the school community*. Or more narrowly: *We the Faculty*. Self-study is voluntary; it is energized and governed from inside the school. It is internally directed. The acts are mainly of volition; and, as an act is never free of its cause, volition attaches to all that is done and spreads its effects to all who participate.

The first task in organizing a self-study is to establish an internal government for the self-study and also for the evaluation and planning that follows. This governing agency must reflect the will of those in the school, and it is almost always called the Steering Committee. The Steering Committee is usually appointed by the head of the school. It consists of teachers at various levels, representative parents, and usually someone from the management level. The Steering Committee should be large enough to be representative but small enough to be deliberative. Ordinarily the head of the school also names the chair; however, some heads prefer to name a temporary chair and leave naming the permanent chair to the committee.

As the authority that governs the self-study protocol, the Steering Committee is a government. It appoints and charges subcommittees; it approves and accepts their reports; and, acting directly, or through the head of the school, it interacts with the agency(ies) involved in the school's accreditation. Its tasks from beginning to end can be characterized as organization, management, evaluation, and communication. The last is as important as any. In the self-study process everyone in the school community should know everything; there are no secrets. A well-governed self-study reflects collegiality at its best.

Some of the authority the Steering Committee needs and has stems from the quality of the persons who are named to it. The selection of members is a process *per se*. School heads usually interview prospective members as part of their selection process. Commitment to good educational practices, recognized professional competence, and devotion to the school are often key criteria. The Steering Committee must call upon others for voluntary effort. So it is important they be known to others as persons who would respond to such a call if made to them. It is an honor to be selected and to serve.

The first duty of the Steering Committee is to understand all that is to be done. This entails reading this *Guide* from cover to cover, the Steering Committee must understand the protocol, and this understanding begins by recognizing that this *Guide* leads to a *concept-based self-study* and the *concept* used in the self-study has a stipulated structure and function.

2.3. GOVERNANCE IN VERY SMALL SCHOOLS

If a school has five or fewer teachers, it is not realistic to structure a Steering Committee which will then appoint subcommittees. In very small schools the Steering Committee is usually the faculty itself, and it operates as a *committee of the whole*. This means everyone on the faculty is on the Steering Committee and participates in making policy for the self-study. Instead of assigning duties to subcommittees, duties are assigned to individuals. In this way the same philosophy of governance prevails. As in larger schools the tasks are distributed to all parts of the school; and in the end everyone participates; everyone is invested.

2.4. CONCEPTUALIZING THE CONCEPT

Concept is a word that echoes some kind of cerebral event, but the event depends on where or why the word is spoken. *Why* is more important than where because nowadays the word, is heard everywhere. The secret of its ubiquity lies in its ambiguity. As a password it gains admission for its user to any of the academic speakeasies that honeycomb our modern institutional order. Dressed out in various institutional garments it moves freely through the labyrinths of technology, business, human services, and all academic departments. Concepts are now attributed to computers and even to buds. A flying formation of wild ducks has been called a *Mallardian Concept*.

The word is now part of our natural language; no one owns it; no one can harm it or, for that matter, do it much good. Even so there are ways for a group to establish concepts and use them without risk of vapidness. The key to clear and useful concepts is to form them through a systematic method that has defined and disciplined steps.

The method of concept development used here has two big steps. The first step (which is Phase I of the Self-Study) entails describing and evaluating the school as an *entity*. The entity simply depicts the school as an institutional presence. Then, in the second step (which is Phase II of the Self-Study) the entity concept is transformed into an *action concept*. This kind of concept goes beyond the school as an entity (or presence); it *explains* the action of the school. So, in the first (*entity*) step the concept describes the school, and in the second (*action*) step the concept explains the action.

Some may ask why there are two steps (or two concepts). The *entity concept* provides the necessary framework for description and initial evaluation. In other words, it supplies the *corpus*. When completed, the entity concept reveals the school's structure and its parts. But it does not reveal what happens when the parts operate together. It does not reveal the *synergy*.

The transformation from an entity concept to an action concept begins with an examination of *synergy*. Synergy is the energy that results when two or more parts of the school work together. That energy is different from the energy that comes from the parts operating alone. Discussions of synergy lead to perception of two qualities that set the school apart from other schools, (1) the environmental press and (2) the environmental action.

The *environmental press* is the "unspoken message" the school constantly delivers. The "message" is given in how people relate, how parts of the school relate, what tends to result when certain things occur, what is expected, what is hoped, and what is feared. Even the school's spoken messages have an underlying unspoken message. Some would call this the "tone" of the school or perhaps its "style." Others would call it the high energy values that are evident in the behavior of the people and parts of the school. We call it a "press" because during every school minute of every school day it presses itself upon and into the life world of each student. As much as anything the environmental press of the school is the school's primary agent of human formation. (See *Notes on Environmental Press and Environmental Action*.)

The environmental action is really an extension of the environmental press. The action of the school is the aggregate of the school's events. But invariably within this aggregate there is a pattern. Discovery of that pattern enables a generalization to be formed about the kind of activity that goes on in the school.

When fully perceived, the environmental press and the environmental action enables a higher concept to be formed. This higher concept is of the school as a living and working action within the life world of each student. This higher concept enables an intuition of what the school is to them, how they feel about it, and how they are disposed to conceive it. This higher concept is the *action concept*.

Further details on how the action concept is formed and used to evaluate the flow of the school's energy (entropy) are presented in Section Six.

2.5. THE STRUCTURE OF THE ENTITY CONCEPT

There are many ways to structure entity concepts. The structure stipulated here is derived from John Locke's Essay on Human Understanding. It is a modest, practical, and common sense formulation (Heath 1972), (Russell 1945) which helps persons of ordinary perception and purpose to fashion concepts of entities that are reliable and useful in their lives.

Locke asserts our perceptions engage with entities in three ways. He referred to these ways as qualities:

- | | | |
|---------------------------------|---|--|
| 1. The <i>Primary Quality</i> | : | The substance of which the entity is made. |
| 2. The <i>Secondary Qualify</i> | : | The appearance the entity offers, i.e., color, taste, odor, etc. |
| 3. The <i>Tertiary Qualify</i> | : | The changes (or the affects) that occur in other things as a consequence of the being and functioning of the entity. |

An example common to all of us is the sun. Primarily, it is a mass of burning and exploding gasses. Secondly, it is a brilliant and moving light in the sky. Tertiarily, there are life processes, chronometrics, and all other events of the world that occur because the sun is what it is and appears as it does and moves the way it does.

It is easy to express how the parts of a school develop in this three-part concept. The *Primary Quality* is the basic stuff of which the school is made. It includes things that change so slowly that for practical purposes they could be considered permanent. They include the kinds of students, the school community, the facility, the legal status and so on. The *Secondary Quality* would be the things that appear to an educator looking at the school's educational operations. Such things are more open to change and, in fact, do change more often than primary qualities. These things would include the methods and materials it chooses to use and how it uses them. The *Tertiary Qualify* includes the results of school experience or the outcomes.

Having made this transfer it is possible to discontinue Locke's terminology and establish for the purposes of self-study the terms, which are appropriate for describing the school as a triadic entity concept.

The <i>Primary Quality</i>	becomes	The <i>Primary Nature</i> of the school
The <i>Secondary Quality</i>	becomes	The <i>Educational Nature</i> of the school
The <i>Tertiary Quality</i>	becomes	The <i>Nature of the Outcomes</i> of school experience

Thus, the first major objective of the self-study is to describe The Primary Nature, The Educational Nature, and The Nature of the Outcomes In accordance with the triadic entity concept stipulated above.

In triadic form the structure appears:



Figure 1. Triadic Concept of the School as an Entity.

2.6. DEVELOPMENT OF THE SELF-STUDY

As indicated above, in Phase I the parts of the school are defined within the framework of an entity concept. Taken in order they are elements of The Primary Nature (see Section Three), elements of The Educational Nature (see Section Four) and of the various outcomes to be defined in The Nature of the Outcomes (see Section Five).

Thus, Phase I calls upon the Steering Committee to appoint three subcommittees that will work concurrently in describing the school as an entity using the triangular formulation shown above in Figure I. Each side of the triangle is separate subcommittees (appointed by the Steering Committee), and usually on a time line of three months (see Figure 6).

The Table of Organization for this first phase of the self-study is:

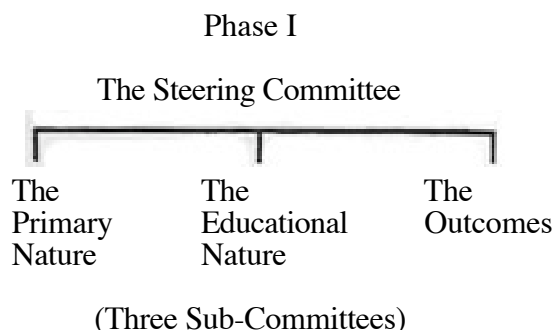


Figure 2. Table of Organization for Phase I.

The three subcommittees named in Figure 2 are working groups of three to seven persons. The Steering Committee names the chairs and presents each of the subcommittees with its charge. The subcommittees work independently but concurrently. The Sub-Committee on The Primary Nature is guided by Section Three of this *Guide*. The Sub-Committee on The Educational Nature and the Sub-Committee on The Nature of Outcomes are guided by Sections Four and Five, respectively.

As it appoints these three committees, the Steering Committee must be mindful of the need for broad faculty and school community involvement. A conscious effort should be made to involve every member of the faculty and staff before the self-study ends. Those participating in this first phase need not necessarily participate directly in Phases II and III. Therefore, the Steering Committee of medium to large schools should use as many as possible in Phase I, but reserve some of the strong leaders and other staff for Phases II and III. As indicated above small and very small schools should distribute the tasks to individuals using the faculty as the committee of the whole.

It is good to have multilevel faculty, administration, and parent representatives on all subcommittees. The interaction of interests and disciplines is an inherent value of the process. Because of this interaction many good things occur in addition to accomplishing the reports. It is the duty of each subcommittee to use the section of the *Guide* provided for its care in developing a narration of the part of the *entity concept* to which it is assigned. Specific instructions are given for the subcommittees on the length and content of their narrations. As the narrations near completion, a very general three-part concept of the school which includes self-evaluations emerges. The subcommittees, in recording these judgments should be made aware that they are tentative and subject to revision or reconciliation in the light of the action concept which is developed later in the Self-Study.

At this point, each of the Phase I subcommittees meets with the Steering Committee for the presentation and acceptance of its report. It is usually a good idea for the Steering Committee to do some preliminary work of its own before this presentation is made. Often the Steering Committee asks one or two of its members to act as an Editorial Committee, which helps the subcommittee prepare its presentation.

Even as the narrations are presented for acceptance the Steering Committee is looking forward to Phase II. Phase II is accomplished by a single "high powered" group called the Committee on *Conceptualization and Evaluation*. It is in Phase II that conceptualization moves to its second stage, namely, the formation of the *action concept* (see Section Six). In some small schools the Steering Committee may decide to do Phase II itself. In such instances the Steering Committee would be the Committee on *Conceptualization and Evaluation*. As the school moves into Phase II, the Table of Organization for medium to large schools usually grows as indicated in Figure 3. In very small schools the Steering Committee simply assigns the work of conceptualization and evaluation or, as just said, takes that duty upon itself.

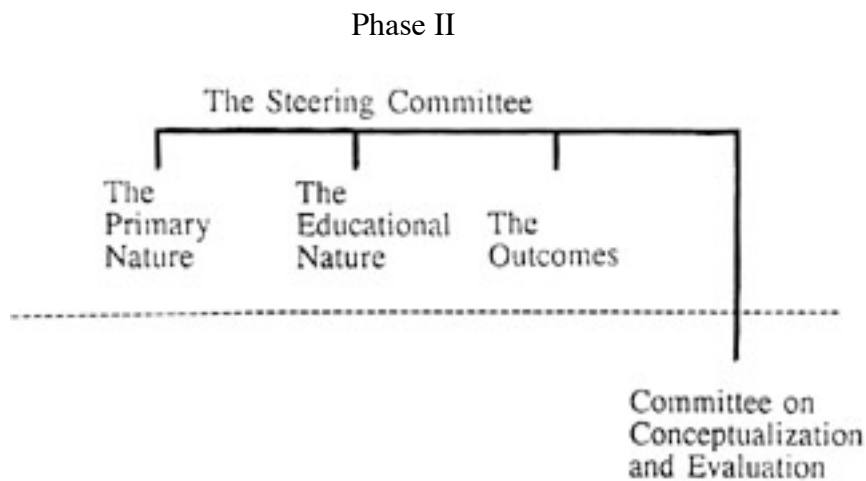


Figure 3. Table of Organization as the School Moves into Phase II.

The responsibilities of the Committee on Conceptualization and Evaluation are described fully In Section Six of this *Guide*. In brief, it takes the narrations that make up the entity concept (done In Phase I), and by the various methods described in Section Six, transforms the entity concept to an action concept. It then returns to the Phase I evaluative judgments and revises those critical to the action concept in the light of *that concept*.

As described in Section Six the three natures of the *entity concept* in radically reduced expression are used to express the action concept. This insures that the action concept statement will be a reflection of the three natures of the *entity concept*. The statement itself, as it is developed by the Committee on Conceptualization and Evaluation, is hopefully one or two and certainly no more than three sentences. However, the syntax of the statement is organized, it will reflect the interaction of the three natures.

2.7. STRUCTURE AND USE OF THE ACTION CONCEPT

Details on the action concept are presented in Section Six. As stated above (Section 2.4.), the action concept is developed by examining how the parts work together (*synergy*) and *obtain perceptions of the environmental press and action*. The concept statement is expressed by three phrases, one dealing with the Primary Nature, one with the Educational Nature, and one with the Nature of the Outcomes. The statement of the action concept is always parsimonious. It very briefly states what the school is, how it works, and what it achieves. Once stated, this concept becomes a "tool" (or a razor), which enables dissection of the parts in order to discern the flow of their energy. It helps show how much of the energy of each part *goes into the concept* and how much is withheld, or goes elsewhere. In Section Six this is called *the- energy audit*.

The Primary Nature combined with the Secondary Nature renders the Nature of the Outcomes as shown in Figure 4.

By the logic of this formulation, the primary nature in combination with the secondary produces the outcomes. Outcomes, therefore, are a synthesis of the primary nature of the school and the educational nature of the school. The logic of this formulation also supplies foundation for outcome-oriented evaluative judgments. If outcomes found to be reasonable are not attained, critical appraisals of the elements described in the primary nature or educational nature (or their synergy) would be warranted.

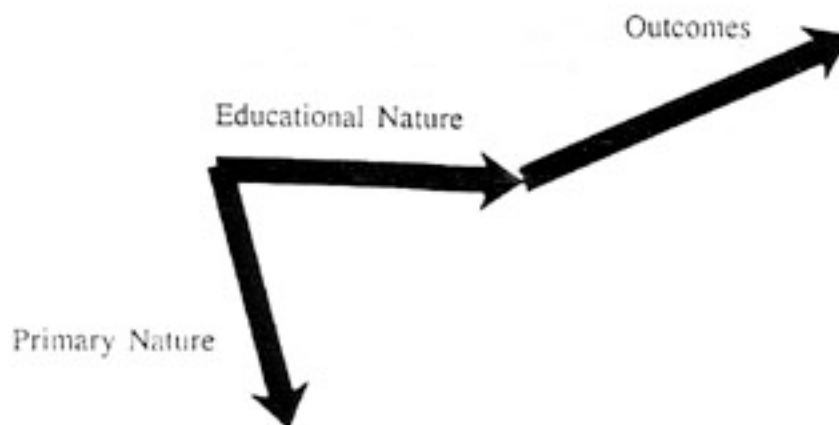


Figure 4. The Qualities of the School in Vectorial Form. Outcomes are produced by interaction of primary educational natures. Once produced, outcomes constitute a third force making three triangulated forces.

At the completion of Phase II all areas chosen by the Phase I subcommittees for description will, by virtue of the energy audit, be reconciled with the action concept. Each Phase I narration now concludes with a judgment of what the school does well and how it can improve *as revised* by the energy audit of the Committee on Conceptualization and Evaluation.

Some will ask why the Phase I subcommittees are asked to record evaluative judgments of the parts, if these judgments are subject to revision by the Committee on Conceptualization and Evaluation. Actually it is important that the quality of each part *as an entity* with the school *as an entity* be assessed. The strengths and weaknesses of these parts help explain the synergies that occur as the parts work together. For example, if the faculty-administration- parent synergy is not helpful to the action concept, the explanation may be that one of the three has a unique problem.

So, it is very helpful for the Phase II Committee on Conceptualization and Evaluation to know what the Phase I subcommittee thinks about status of the parts.

Furthermore, *not all of the Phase I* judgments will be considered for revision. The Committee on Conceptualization and Evaluation will reconcile only those judgments, which are critical to the action concept.

The report of the Committee on Conceptualization and Evaluation, like the ones before it, is then returned to the Steering Committee for approval. Even as it studies and accepts this report the Steering Committee is in preparation for Phase III of the self-study (see Figure 6).

Phase III begins as the others, with the appointment of a committee. This one is named *the Committee on Strategic Planning*; and, as it becomes operational, the completed Table of Organization for the self-study is formed as shown In Figure 5.

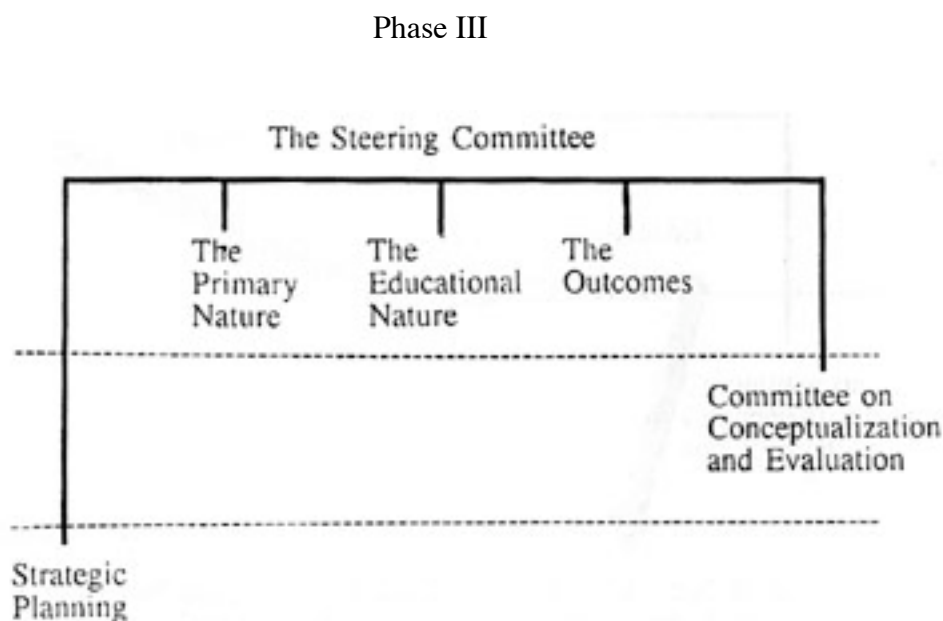


Figure 5. Completed Table of Organization for the Self-Study.

The Committee on Strategic Planning may require three to five months for its work. Because the details of the strategic planning process are set forth in Section Seven of this *Guide*, no more is said of it here. Sections 7.17 through 7.19 of this *Guide* present a suggested format for the report on strategic planning. When the planning report is completed and accepted by the Steering Committee, the self-study is finished and ready for evaluation by a visiting team.

2.8. THE SELF-STUDY REPORT

The Self-Study Report consists of an Introduction followed by four sections and an *Appendix*. The Introduction to the Self-Study Report begins with the presentation of the action concept. As shown in Section Six, the action concept statement is expressed in only one or two sentences. However, the presentation should include appropriate background and offer a logic of justification. Typically this requires no more than two or three pages that are written with the intent of providing a context for all that follows.

The first section after the Introduction is the one on The Primary Nature, the second one The Educational Nature, and the third is on The Nature of the Outcomes. The order of these sections is identical to that fashioned by the three Phase I subcommittees. The narrations are organized as they were organized by those committees. However, the content of the narrations and evaluation judgments are as *revised by the Phase II Committee on Conceptualization and Evaluation*.

However, the Committee on Conceptualization and Evaluation will present other materials in the report that are entirely new, namely, *the important synergies* (see Section 6.6.3.). Thus it is certain to face the questions: *Where shall descriptions and evaluations of synergies be reported?* The Committee must answer that question with its own logic. Self-study reports are not all that prescribed. There is room for creative organization and development. The Committee can weave the synergies throughout the text or create a special section for them (See Section 2.11. Common Questions/Concerns).

The fourth section is normally the report of the school's strategic plan (see Section Seven). However, *some* schools prefer to delay strategic planning until *after* the visit of the evaluation team (see Sections 2.9. and 2.10. below). If the school opts to defer strategic planning this fourth section is not, of course, included.

The Self-Study Report concludes with an *Appendix*, which consists of exhibits. The school should exhibit appropriate financial information, enrollment data, teacher-to-student ratios, relevant test results, or anything else advised by or found needed by the Chair of the Visiting Team or the accreditor. The appendices should include information that bears upon these standards or those of any other accreditation in which the school is interested.

The accreditation standards of the American Montessori Society and the Commission on Elementary Schools of the Middle States Association are in the *Appendix* of this *Guide*. These standards will help the school understand what may be needed in the *Appendix* of the self-study and/or on hand when the visiting team arrives.

The sequence of the elements of the report, therefore, is designed to reveal the coherence of the report. The logic of the three sections on the natures is established in the logic of the Introduction, and the logic of the strategic plan is in coherence with all that goes before. The concept of the school, thereby, becomes the theme of the report, and all evaluative judgments refer to it. The *Appendix* exhibits information relative to the concept and the standards of the accreditor(s) with whom the school is working.

2.9. THE VISITING TEAM (The Peer Review)

The visiting team always becomes an influence long before it is appointed. This is because everyone knows it is coming; its members will go over each page of the self-study; they will come to the school for three days; they will evaluate the self-study and the school; and they will render both an oral and written report of their findings. As the faculty anticipates all of this, the visiting team becomes a *significant other* in the life of the school even before the self-study begins (Stoops 1989).

The size and behaviors of peer review teams vary from accreditor to accreditor. Montessori schools can expect teams with three to seven members depending on the size, scope, and complexity of the school. These and other details are provided by the accreditor who usually appoints and organizes the team.

TIME/EVENT DIAGRAM

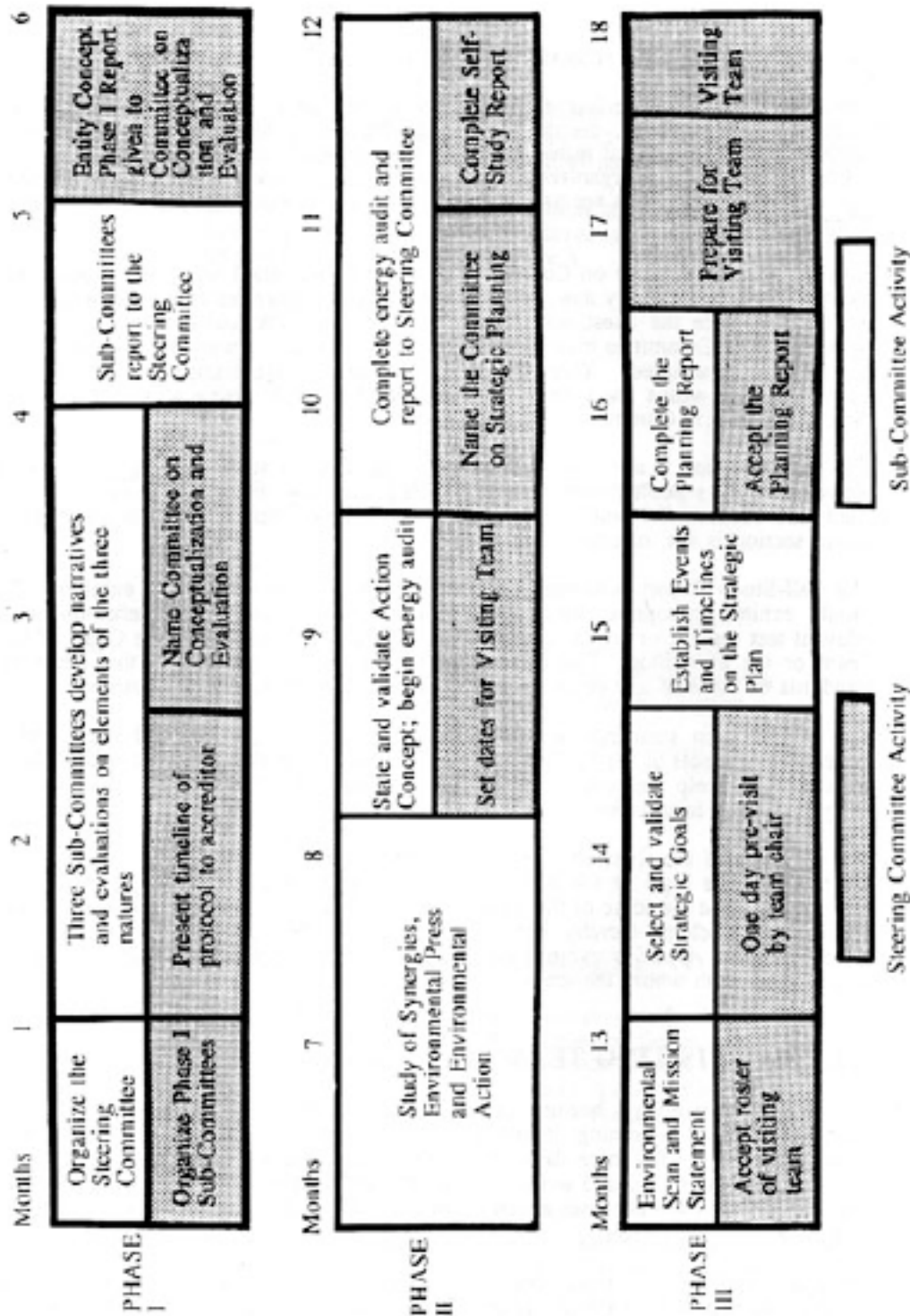


Figure 6: A suggested eighteen month accreditation protocol. Compress to fifteen months or expand to thirty-six.

The Steering Committee and others should bear in mind that the objective evaluation provided by a visiting team is an integral part of the process. The self-study by the school and the community is in effect, just one eye. The team provides the "other eye" that is needed to see things in depth. This "other eye" enables a binocular three-dimensional vision.

Finally this *peer review process* is never adversarial. Those who train for school evaluation and who accept invitations to serve on visiting teams do so with the belief they are part of a positive and supporting process. They do not seek wrongdoing (although on occasions they may find it), and visiting teams do what they do and say what they say with a desire to help the school in its effort to improve.

2.10. AN OPTION

Some Steering Committees want to have the report of the visiting team *before* they complete the strategic plan; and, in accordance with the policies of the accreditor(s) with whom the school is working, the Steering Committee may call in the visiting team at the conclusion of Phase II. By this option Phase III, (the final part of the self-study) which includes strategic planning, is deferred until after the school has received the report of its visiting team. In this way the evaluative commentary of the outside evaluators can become part of the wisdom that goes into the strategic planning process. There are advantages to this option. Knowing what outside evaluators think adds power to the concept and this power, of course, may add to the strength of the plan.

On the other hand, if all three phases are done before the team arrives, the draft of the strategic plan is also evaluated by the visiting team. The school will, therefore, gain from having the team's objective opinion about the plan. Schools seeking this objective opinion are advised to complete all three phases of the self-study before the team appears. So there are advantages either way. The school must decide if it wants the advantage of knowing the team's evaluation before it completes the planning process or if it would rather have the advantage of the team's evaluation of the plan itself. In deciding which of these advantages it prefers, the Steering Committee also determines whether it will call in the team at the conclusion of Phase II or Phase III.

2.11. COMMON QUESTIONS/CONCERNS

Question:

If we establish a concept of the school as an entity, why must we then transform this into another concept - an action concept?

Answer:

The school as a simple entity is not a force within the life worlds of its students. The reality we need to grasp is not just what the school is as an entity that is off by itself, we need also to have a firm concept of what the school does within the lives of the students. The school that is active in the lives of the students is the one that matters.

Question:

Well, if the action concept is the real thing, then why do we need an entity concept?

Answer:

The action of the school is not disembodied. The action occurs as the parts work in synchrony. It is essential to have *prior* descriptions and evaluations of those parts. However, if the action is not what the action concept wants it to be, we evaluate the parts in another way. The entity concept gives us a *corpus* to work on. But the school is not a corpse, and the evaluation is not an autopsy.

Question:

So, there are two concepts?

Answer:

In a way, yes. The first object of our conception is the school as an entity; and the entity concept as narrated by the Phase I subcommittees becomes the structure of the final report of the self-study. As said above, it is the *body of the school*, i.e., its physical presence in the world.

But to get an evaluation of the entity we must also form a concept of its action (or we must conceive its practical effects). Without an action concept we have no way of knowing how well the school works or how well any of its parts or their synergies work. You can think of it as two concepts or you can think of it as an entity concept that has been given an action dimension so the elements within it can be properly evaluated.

Question:

If the final report is structured on the elements of the entity concept as established by the Phase I subcommittees, where do we report the synergies developed in Phase II?

Answer:

As indicated in 2.9, the Committee on Conceptualization and Evaluation answers this with its own logic. At that point the action concept is stated and the Self-study is well along. The logic of the situation has a force of its own and the committee should go with it.

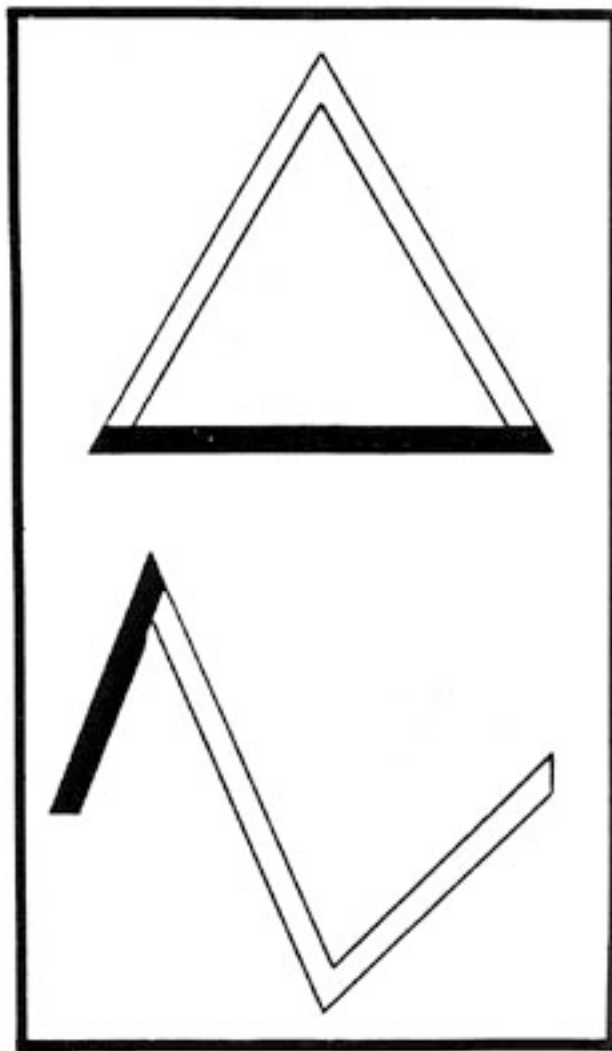
Doing a Self-study is a lot like learning to fly. In the beginning stick close to the rules. But as skill develops, confidence grows, and the sense of it fully obtrudes it is OK to glide and soar.

Question:

Which of the two options (strategic planning before or after the team visit) is the fastest track to the accreditation of the school?

Answer:

It makes no difference; one is as fast as the other.



SECTION THREE

THE PRIMARY NATURE OF THE SCHOOL

3.1. MEMBERS OF THE SUBCOMMITTEE

3.2. INSTRUCTIONS

The subcommittee is responsible for development of a ten to twelve paragraph narration on The Primary Nature of the School. As indicated below, the elements are organized in three topics.

The first is the legal personality of the school. Usually one paragraph suffices for this. As the paragraph ends the Subcommittee should indicate its tentative evaluative judgment as to whether the legal personality has anything to be desired. The second topic is the students, families, and community. The narration of this should cover three to five paragraphs. Again each paragraph should conclude with evaluative judgments. *Here the judgment is of how well* the school accommodates the students, families and community. The third and final topic includes staff, facilities, and finances. This topic also requires three to five paragraphs; and, like the others should conclude with broad evaluative judgments. E.g., is the staff appropriate for this kind of school? Are the facilities appropriate? Are the finances appropriate?

3.3. ELEMENTS INCLUDED IN THE PRIMARY NATURE

In simple terms, the primary nature of the school consists of the basic elements out of which the school is made. Like all things do, these elements change, but they usually change slowly; or, for practical purposes they may go for long intervals with virtually no change. Some elements of the primary nature pre-existed and may never really have been within the control of the school. Others of these elements may have been implanted at the time the school was founded. They are established as fundamental and the current leadership of the school has only limited control of them. Still others of these basic elements are under school control, but changes in them can occur only slowly, over a long period of time.

Topics of the primary nature are captioned by three major headings:

- 3.3.1. The Legal Personality of the School
- 3.3.2. The Students, Families, and Community
- 3.3.3. The Staff, Facilities, and Finances

The legal personality of a public school or that of a diocesan parish school is widely understood. Subcommittees at work on the primary nature of such schools need not go very deeply into the legal foundations. However, there are exceptions. Some public Montessori schools are magnet schools and others operate through special provisions made for them within a public school system. The same may be true of diocesan parish schools.

Most non-public schools and non-diocesan schools will find their legal personalities named among the descriptors listed under heading 3.3.1.1. - 3.3.1.8: For such schools all the sub-descriptors mentioned are Important and should be Included in the narration. The narration should provide information on such matters as levels of profit (in proprietary schools) and the existence of (and adherence to) by-laws where the school is governed by boards. Most accreditors have standards regarding levels of profit; and by-laws help assure the continuity of governance and define the accountability for school operations.

A full narration of 3.3.2. The Students, Families, and Community are a must for all Montessori schools. Many schools especially those that are tax supported have only a limited control over who attends them and the community may simply have a geographic definition. For such cases the school may have only a limited influence upon the make up of its school community. However, this is beginning to change. In recent years some public school districts have established open choice policies. Students from a wide municipal area may choose the public school they attend. This means the public school may not have geographic definition. Other school communities, especially those of non-public schools, grow out of the enrolled students and their families. The school community in these cases is a self-selecting group that may have parameters that are other than

geographic. The ties in these communities may be religious, economic, social, or a common enthusiasm for the kind of education the school provides.

Finally, although the school has control of its staff, facilities, and finances, changes in any of these things are usually gradual. Occasionally an unanticipated bequest results in rapid change, and the school suddenly becomes a different place. But long-range planning and development is the way most changes in staff, facilities, and finances occur. This causes them to be included in the primary nature of the school.

3.3.1. The Legal Personality of a School

Common law basically applies to persons. Persons exist in the eyes of the law. So what about organizations? To be visible to the law an organization must become a *corporation*. Corporations are, in effect, legal personalities. A corporation cannot be put in jail; but, like a person, it can be punished. Also like a person it has rights and responsibilities. It can enter into agreements and can sue and be sued. Corporations can own property. Corporations are protected by the law; some of them are obligated to pay taxes; and, although there is no way they can serve in the armed forces, they can be taken over by the government and forced to serve the public interest in ways specified by emergency decree.

In the eyes of the law an incorporated school is, therefore, a kind of legal personality. Like all personalities, it behaves according to its traits. There are things one legal personality can do that another cannot. Schools that are part of church organizations may be governed by both ecclesiastical and civil law and thereby fall heir to certain immunities and restraints that do not apply to other legal personalities. Public schools are actually "creatures" of legislation and many of their policies and practices extend directly from legislative enactments. Not-for-profit independent schools may operate beneath tax shelters erected for acts of charity. There are other differences that are based on the kind of legal personality the school has.

Seven types of legal personalities are presented here. By addressing the issues cited for each, the school is guided in developing a one paragraph narration on its legal personality.

3.3.1.1. Public Schools

Public schools are provided through state subdivisions known as school districts. The legal powers conferred upon a school district vary from state to state. For example in some states the districts can levy taxes and adopt a school budget without referendum. In others both the budget and any tax increases must be approved by the voting citizens of the district. School districts are limited in the amount of indebtedness they can incur; sometimes these limits are statutory, sometimes constitutional.

Nowadays some public schools operate under the jurisdiction of the courts on matters such as school integration. Court approved desegregation plans often include "magnet schools," and some "magnet schools" are public schools. Here are the issues to be addressed if the school is a public school:

- Size of district and number of schools.
- Appointed or elected board.
- Indebtedness in relation to annual expense budget.

- Citizens advisory groups (if any).
- Administrative structure (to whom does the head of the school report, etc.).

3.3.1.2. Not-for-Profit Corporation

This is a widely adopted legal personality for independent schools. Many elementary schools are not-for-profit corporations. Some not-for-profit school corporations have strong identification with religious groups, secular societies and for-profit corporations. A not-for-profit school may even rent space from other corporate entities and still remain separately incorporated.

Not-for-profit corporations sometimes have persons named to their boards by other organizations. In effect such persons serve *ex-officio*. Often the head of (for example) a religious organization is *ex-officio* chair of the board and names all other board members or names a group of the board who are members of the religious community and may constitute a majority of the board. In some overseas schools the American ambassador may have a similar duty and may name embassy staff or other overseas Americans to seats on the board.

Groups of parents sometimes organize a Montessori school as a not-for-profit corporation, and to govern the school they establish a *self-perpetuating board*. The board is named at the time of incorporation under by-laws, which give board members terms of office and empower the board to fill its own vacancies. Other not-for-profit corporations establish the parents as the body politic; and, accordingly, the board is elected by the parents. Depending upon the by-laws, other matters (such as tuition) may also be determined by vote of the parents.

Not-for-profit corporations can be owned by individuals alone or in partnership or with other corporations. A common form of public ownership of not-for-profit corporations is through common stock, or the corporation may be owned in common by the defined body politic (if there is one). One of the key issues regarding ownership is the distribution of any assets if or when the corporation is dissolved.

By-laws normally enacted at the time of incorporation should be regularly updated. The narrators who are preparing this report and subsequently the evaluators who visit the school should examine the by-laws for adequacy and relevancy.

These and other issues should be covered in the narration:

- Ownership of corporation.
- Nature of the board (self-perpetuated, elected, appointed).
- Powers of the board.
- Properties owned or leased.
- Indebtedness if any.
- Dissolution clause (the distribution of assets if the corporation dissolves).
- Charting Authority (license).

- Adequacy and currency of by-laws.
- Bonding of officers.

3.3.1.3. For-Profit Corporation

For-profit corporations are formed by individuals who expect to operate the school for profit. Often they buy stock; and control of the corporation is through the numbers of shares owned by the various owners on the basis of one-share-one-vote.

If stock is not issued the mode of investment or control may be through partnerships. The authority of each partner usually equates to the level of financial investment. However, other kinds of investment such as talent or time can be weighed. Again, the all important control and continuity is spelled out in the school charter, by-laws, and any collateral agreements. If self-study leads to accreditation, the stability of the arrangement can be critical. Provisions for stability should be mentioned in the narration.

Also requiring attention is the level of profit. Education being what it is, accreditors tend to require that nearly all of the income from school sources be applied to the education of the students. Thus, as profit (or dividends on common stock) rises above eight percent of total income the accreditors may become increasingly concerned. Education is not like industry. If the quality of a manufactured article goes down, only the person foolish enough to buy it suffers. If the quality of a school goes down, an innocent student suffers, perhaps for a lifetime. It may be well and good to operate a school as a business. But education has inherent ethical considerations that do not apply to merchandise. This is why accreditors must take note of the level of profit the owner extracts from the total school revenues.

Here are the issues to be addressed:

- Ownership (is the equity arrangement through stock or partnership).
- Nature and powers of the board.
- Currency and adequacy of by-laws.
- Indebtedness (if any).
- Level of profit.
- Bonding of officers.
- Property owned and/or leased.
- Charting authority (license).

3.3.1.4. Private Ownership

An individual can own a school and operate it as a private business. Many schools are owned and operated in just this way; and, like other businesses, they can be bought and sold. Accreditors are aware of this and aware that accreditation may be perceived as a proprietary value although this is presently disputed in the courts. In effect, accreditation may increase the cash value of the school. Some accreditors do not permit accreditation to be included in any sale, but legalities of this are also not clear. As matters currently stand, some accreditors ask schools accredited under a prior owner to go through an accreditation protocol again when the school changes hands, and they usually do.

Not every owner is an educator, and when the owner is not an educator narrators of the self-study report must also comment on how educational policy is controlled. Again, a school is not like other businesses. Damage to a "product" may in fact be damage to a young person.

It is, therefore, important to know who makes educational decisions and how they are made. For example, if the school is operating on a line of credit and the accounts are in deficit, some of the decision-making may have moved to someone within the lending institution. In other cases absent owners have been known to vest critical decision powers in their accountants. Delegation of control is not illegal, but the accreditors usually take a stern view if control of educational policy passes to persons who are not qualified educators. In Montessori education this would be a very serious matter.

Another issue that often arises when an individual owner is also the legal personality of the school is *possible conflict of interest*. What other business does this same owner own or control? Are assets mingled? Can assets of the school be arbitrarily removed and given to another organization? If they can, a very substantial part of the school could suddenly disappear. Accreditors need to have assurance this will not happen. In cases where a school is owned by an individual or individuals the self-study report must comment on other interests and examine for possible conflicts.

These dangers notwithstanding, it must be affirmed that some excellent Montessori schools are personally owned and operated. The proprietors are good educators and use their proprietary powers both to govern efficiently and to implement their own educational vision of Montessori education. Proprietary schools have made great contributions to American education and will continue to do so. There are dangers, but these can be averted by prudence in evaluation: and accreditation.

The narrators should describe:

- Control of policy (owner or if not an educator a designated educator).
- Level of profit (if any).
- Charter (license).
- Properties owned or leased.
- Indebtedness (if any).

- Bonding of owner and/or other fiscal authority.
- Provision made for school assets to remain with the school.

3.3.1.5. Sponsored School

A school can be sponsored by a learned society, a university, a religious community, a monastery, a business corporation, a foreign embassy, or some other kind of corporate entity. Sponsored schools do not have their own corporate status. They function under the corporate auspices of the sponsor. Narration on sponsored schools should clarify the level of control (if any) the sponsor has over educational policy.

Some schools operate as sponsored schools as a step prior to incorporation; others continue indefinitely as sponsored schools. Sponsored schools do not own or lease property. The property or the lease usually belongs to the sponsor. By internal policy a sponsor can “assign” property to the schools and derive revenues as if the school were a separate legal personality. Often this is done by assessing the school through a "rental" or "assigned cost" line in the school's operating budget. This enables the sponsor to obtain revenues from the school.

Sponsors can have many other good business reasons for sponsoring a school. Businesses that locate overseas may operate a school in order to accommodate employees that have children of school age. Religious communities might sponsor schools as a desirable way to give members of the community remunerative employment as well as to extend the religious mission of the community.

Whatever the business reasons or other reasons, the vast majority of sponsors are primarily motivated to provide a good education that serves an important family constituency. It is rare that an evaluator/accreditor finds evidence that a school is operated solely for the benefit of the sponsor, and the students are short changed. But this can happen; and, because the possibility exists, the narrators should deal with it. No one should complain if the sponsor/school relationship is mutually enhancing, but if benefits balance heavily on the side of the sponsor to the possible disadvantage of the school and its students, the accreditor will be concerned.

Narrators should attend to the following issues:

- Nature of sponsor.
- Relation of sponsor to school.
- Involvement of sponsor in governance (control of the board, administration, etc.)
- School income, if any, diverted to sponsor (or support of the school by the sponsor).
- Property leased.
- Charter (license)

3.3.1.6. Unincorporated Associations or Cooperatives

Unincorporated associations or cooperatives are agreements between and among individuals for the purpose of operating a school. Because the resulting organization is not a corporation or sponsored by a corporation it is not visible in the eyes of the law. What is visible to the law is the agreement among individuals that brings the enterprise into being. This is, in effect, a contract through which individuals agree to do certain things in exchange for certain things.

In most instances this appears in the form of a constitution and a set of by-laws that, once agreed to by the persons involved, are enforceable through the courts. Much that goes on, therefore, occurs just as it would in a corporation.

Unincorporated schools can budget for legal counsel and lease property through elected or appointed agents. But for unincorporated schools, ownership of property and certain other kinds of legal transactions can be very complicated. Usually when an unincorporated school or cooperative reaches the point where owner-type transactions are regularly required, it should incorporate and usually does.

But, some never do. The persons involved go on simply as individuals who are in business together, and there is no reason why this cannot result in an on- going school worthy of accreditation.

Narration should deal with:

- History and purposes of the Association.
- Constitution and By-Laws.
- Bonding of officers and employees.
- Duties of the board and officers.
- Description of the policy-making process.

3.3.1.7. Denominational (or Parish) School

Denominational schools were among the very first elementary schools in America and have been in continuous operation since colonial times. They are owned and operated by religious corporations. Because their origin predated the Constitution of the United States and those of the states and because they have been in continuous operation, their legal personalities are simply assumed to be those of the churches that own them. In some instances they may have designated budgets, in others not. Catholic parish elementary schools are part of the parish organization and, of course, financed and administered by parish authorities and employees but may have supervisory and other support services from diocesan or synod educational authorities. Typically, a Catholic diocese does not own or operate elementary schools. Elementary schools are usually owned and operated by the parishes often with supervisory assistance by diocesan authorities. However, Catholic dioceses usually own secondary schools and can own elementary schools.

The narration should include:

- Description of diocesan system (if part of such a system) and relationship to diocese.
- Commitment of the church to operating a school.
- Whether the enrollment is open or restricted to denominational or parish families.
- Relationship of educational administrators to parish or denominational authority (provisions for continuity of leadership).
- Relationship to religious communities (if any).
- Relationship to regional public education agencies (if any).
- Properties owned and/or leased that are dedicated to school purposes.

3.3.1.8. Franchise Schools

Franchise schools are a special type of incorporated school. The corporation can be for-profit or not-for-profit.

The franchiser itself is always a corporation. It owns and operates schools. It can also be a partner with other schools that agree to operate in ways the franchiser specifies and use services the franchiser offers. A typical educational franchiser owns and operates a number of schools; it may "sell" some of its schools to private owners under agreements that the schools will operate in accordance with the franchiser's policies; or it may permit other privately owned schools to affiliate and use franchise services in exchange for policy control and annual fees.

The franchise school is a relatively new phenomenon. One of the attractions it offers to investors is marketing capability. Because marketing specialists are not always educators, advertisements may not always reflect the sensitivity and restraint educators ordinarily demand in claims about educational gains. The narrators need to be alert to this. In addition, the franchiser usually exercises strong control of educational and administrative policy. The policy makers, therefore, are at some distance from the school and the school community. The narration must also deal with this.

On the other hand educational franchises usually have well considered standards of operation; and, through collective financing the franchise can offer a range of resources beyond those assembled by many other free-standing school corporations. These collective resources should be described.

- The narrators should consider these issues:
- Owned by the franchise or affiliated with the franchise.
- Franchise fees and services.

- Franchise involvement in quality control (curriculum and supervision).
- Levels of profit in relation to income.
- Any indebtedness.
- Property owned or based.

3.3.2. The Students, Families, and Community

As much as from anything else, The Primary Nature of a school develops from the characteristics of the students and their families and from the characteristics of the school community. Students and families are, of course, obvious. But the community does not always have a precise numerical or geographic identity. A community is not necessarily defined by legal boundaries. A school community is a cultural/social/economic environment not simply an administrative jurisdiction (as, for example, a school district). Some independent schools define their community as "the families of a wide region and the social and cultural institutions through which they relate". Some church-related school communities are "faith communities" and include all individuals and other church-related institutions that influence the school, but are not regularly involved in its routines.

Schools in resort communities often have high enrollments in the fall and spring and low enrollments in mid-winter. This suggests a kind of dual community made up of both an inner community consisting of the resort industry and a larger seasonal community, which that industry serves. Other schools are in communities that are in effect "industrial villages" where the whole town derives its prosperity from a single industry. In such instances that industry is a key part of the school community.

In its narration, the Subcommittee on The Primary Nature is advised to develop three to five good paragraphs on the students, families, and community. The narration should begin with a statement about the learning characteristics of the students. Following this should be a description of the families. General statements about income and education levels are satisfactory. Of increasing interest is the proportion of single parents, foster parents, court placements, etc. Community resources available to the school, especially those that can support the school's educational endeavors should be briefly described. Libraries, museums, musical groups, parks, and play areas are included in The Primary Nature of the school.

3.3.2.1. The Learning Characteristics of the Students

At least one paragraph should be devoted to what can be said about student ability. All modern schools measure and monitor this with group measures and observations of other kinds. A student population can be described as above the normal range, high in the normal range, in the normal range, low in the normal range, etc. Modern schools also maintain a watch on exceptionalities, e.g., audio/visual impairment, orthopedic impairment, exceptionally high ability, specific learning disability, social/emotional disability, or developmental disability. The incidence of these should be noted. Special social/cultural characteristics are also to be included. A proportion may have English as a second language; a proportion may be court placed; a proportion may require before and after school supervision, or special transportation, or special medication, or special diet, or counseling, or other special school services.

- Therefore, the paragraph should include:
- Orientation to normal range.
- Incidence of exceptionalities.
- Cultural/social/religious sub-populations.
- Need for special services.

3.3.2.2. Economic/Cultural Characteristics of Families

Early childhood and elementary education is always a cooperative school and family enterprise. Montessori schools in particular must develop one or two paragraph descriptions of the families of the students which observes:

- Levels of parent education (estimated % high school graduation, college attendance, degrees, and graduate/professional education).
- Employment (estimated % labor, service, homemakers, managerial, business/professional, etc.).
- Cultural unity/diversity (broad cultural characteristics, and subcultures, etc.).
- Income levels (estimated % low, middle, and high).
- Religious background (uniform, distributed, diversified, etc.).

3.3.2.3. The School Community

The students and their families are the core of the school community; but there is more to be said; and at least one good paragraph is needed in order to say it. What defines the community? Is it a religious affiliation? Is it interest in Montessori education? Is it a business or social network? Is it an administrative jurisdiction? What kinds of supporting institutions are included? What other out-of-school resources does the community provide?

- Any special defining features/interest.
- Libraries, museums, galleries, and other such resources.
- Any supporting clubs, associations or affiliations.
- Other competing schools/or educational alternatives.
- Any special talents/resources of parents or friends of the schools.

3.3.3. The Staff, Facilities, and Finances

3.3.3.1. Staff, 3.3.3.2. Facilities, and 3.3.3.3. Finances are primary features of the school. Even though the school has within itself the power to change them, the changes usually occur slowly, and the school is obligated to continue using them as the changes occur. Changes in these fundamental features usually result from long-range planning. Narrations on Staff, Facilities, and Finances usually require at least three and possibly five paragraphs. Financial statements, balance sheets, etc. belong in the appendix. The narration in this section of the report should include only a one-paragraph discussion of the sources, the adequacy, and the stability of the revenues. In addition to this one paragraph on Finances, another for Facilities and two paragraphs for Staff are needed. Guidelines for these four paragraphs are presented in 3.3.1., 3.3.2., and 3.3.3.

3.3.3.1. Staff

A two-paragraph description of the staff is needed; the first of the two should present the numbers of staff including:

- Full-time classroom teachers.
- Part-time classroom teachers.
- Full and part-time teaching assistants.
- Custodial, food, health, transportation and personnel.
- Psychologists and/or counselors.
- Area specialists (Reading, Physical Education, Mathematics, etc.).

The second paragraph should present the qualifications of the educational staff. This of course includes degrees and experience. The Montessori credentials must be reported. (If there are full or part-time classroom teachers who do not have Montessori credentials, a description of their background, experience, and current training activity should be developed and presented in an added paragraph.)

3.3.3.2. Facilities

A paragraph describing the building should include:

- Date of original construction and last renovation.
- Number of floors, classrooms, and studies of safe usage.
- Staff access, grounds, and play areas.
- Any restriction on use.
- Proximity to student residence.
- Transportation of students.
- Health, food, administration, library, storage, and teacher area.

3.3.3.3. Finances

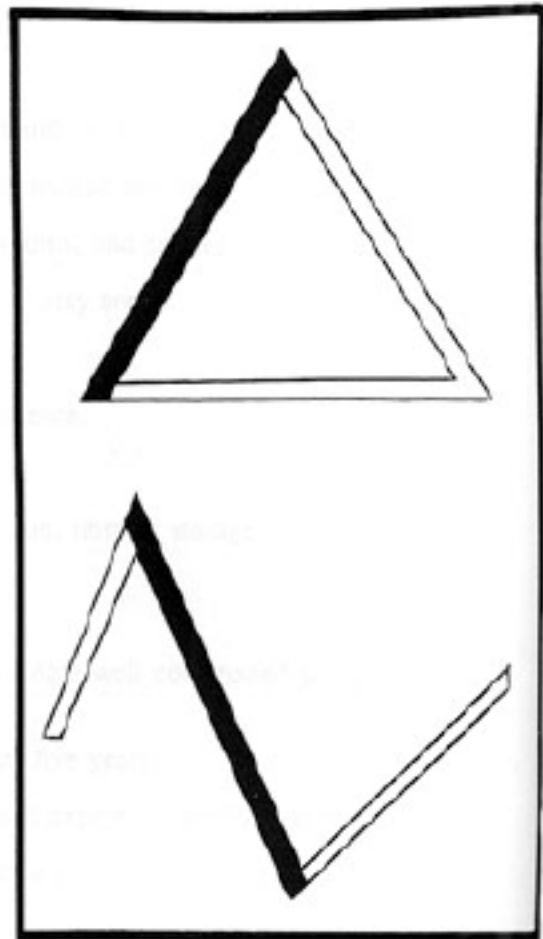
School finances can be described in a single well constructed paragraph. The paragraph should reveal the following:

- Source(s) of income (past five years).
- Comparison of income and expense (past five years).
- Distribution over budget categories.
- Indebtedness (if any).
- Projections of Income (next five years).
- Projections of Expense (next five years).
- Per student expenses.

3.4. THE REPORT

After the narration on The Primary Nature is completed, the subcommittee presents its report to the Steering Committee for acceptance. The Steering Committee then combines it with the reports on The Educational Nature (Section Four) and The Nature of Outcomes (Section Five) and forwards all three to the Committee on Conceptualization and Evaluation. The responsibility of that committee is described in Section Six of this *Guide*.

After it establishes the action concept of the school, the Committee on Conceptualization and Evaluation may need to reconcile parts of the narration so expression of The Primary Nature will be in full coherence with the *action concept*. *It will also study the evaluative judgments and revise them in the light of the action concept*. This is because the action concept becomes the foundation upon which the materiality and relevance of the final evaluative judgments must stand. For this reason the Subcommittee on The Primary Nature must regard its own evaluation as preliminary.



SECTION FOUR

THE EDUCATIONAL NATURE (CHARACTERISTICS OF MONTESSORI EDUCATION)

4.1. MEMBERS OF THE SUBCOMMITTEE

4.2. MONTESSORI EDUCATION

This Section of the *Guide* supports the school in development of a twelve to twenty paragraph narration on its Educational Nature. When this narration is combined with narrations on The Primary Nature (Section Three) and The Nature of Outcomes (Section Five), the triadic entity concept, which is the foundation of the self-study, will be complete. The Committee on Conceptualization and Evaluation will then transform the entity concept into an action concept. As are the other two narrations, this narration on the characteristics of Montessori Education stems from descriptors (identified as qualities in subsection 4.4.1.). These narrations, as do the others, conclude with two evaluative judgments, one that reveals what the school does well in regard to the descriptor and one, which indicates how the school can improve on that same descriptor. Because there are six descriptors (or qualities) there will be twelve judgments.

Montessori starts education at birth. She sees continuity between the child's life at home and the child's life in school. She acknowledges parents are the child's first teachers and defines her educational scheme as *optimal child rearing*. As do the child's parents, all other adults involved in the child's education must model value-laden behaviors. Teachers drawn to Montessori education, and trained in it, accept this definition of their role. The best of them are authoritative (Rambusch 1962), firm at the edges, empathetic at the center. They provide a social setting in which the; boundaries are clear; and within these boundaries, dictated by the particular culture's perception of ability, children are free to act and learn. The American Montessori teacher recognizes that young children think differently from adults but experience the same emotions as adults. Montessori teachers recognize the empathetic links that shared feelings create in a classroom community. These empathetic links are vital in the development of each child's innate morality.

The development of children as moral beings, therefore, derives directly from Montessori's perception that children *are* moral beings from their beginning. The emergence of children as "new" persons with qualities in embryo is more than the empty promise of a grand scheme of educational reform. It is really a conviction that education must be in harmony with each child's "true" moral, spiritual, cognitive, and affective qualities. Every attribute of Montessori education is grounded upon an understanding of those qualities. So, as we move from the parent behaviors to the teacher behaviors, to the characteristics of the learning environment, and to all the learning activities that a school provides, we must hold the natural qualities of the child as the basic reference.

Accordingly, the initial learning environment Montessori established in San Lorenzo was very unlike the garden variety Nineteenth Century Roman classroom, with its teacher seated on a dais at the front of the room, and the children fixed to their seats in serried rows. The San Lorenzo environment had the configuration of an urban apartment, with spaces allocated for sitting and visiting, working and washing, reading and gardening. This was the Children's House, built on an extended family model, with the teacher in charge assuming the responsibilities of a "universal aunt." Montessori joined to this another model, that of the scientific laboratory with spaces for the children to become absorbed in their self-chosen work, supported by the teacher as a collaborator and assistant.

From these beginnings, Montessori's understanding of the natural qualities of the child; her theories of child development, and her Montessori environment, materials, and methods grew together. Presently, about four thousand Montessori schools operate in the United States. Although Montessori education continues popularly regarded as a method for very young children, there are many Montessori six and eight grade elementary schools and even a few Montessori secondary schools that extend the principles of Montessori education through adolescence and beyond.

4.3. DEVELOPMENTAL STAGES

Reflective of her developmental view, Montessori sees education as having a particular focus at each stage of the child's development. Her environmental experiences available to the child change form at each developmental stage.

Montessori's *first stage of development* is birth to about six years of age, subdivided into two periods, birth to about three and three to about six. This first period, that of the "absorbent mind", is one in which the child assimilates knowledge prodigiously with a spontaneity and ease far greater than in later life. Montessori sees the child in the birth to three period as "the unconscious creator" and the child in the three to six period as "the conscious worker". In the first period the function of infancy is to adapt oneself to one's environment, constructing behavior, which freed one to act in the world about one and to influence that world. The second period, between three and six years of age, is one of integration, systematization, and organization of mental structures. The learning environment Montessori prepared for this stage child has a social and physical organization she sees as corresponding to the child's emergent inner organization.

The child ought to find in his surroundings something organized in direct relation to his internal organization, which is developing by natural laws (1965).

The *second stage of development begins at about the age of six and continues to about the age of twelve. During this stage* the child develops a capacity to deal with abstraction and develops a moral sense. Intellectual development continues as a result of auto-education, the manipulation of stuff, the understanding of class inclusion, inductive thinking, and the relationship between cause and effect. Learning in this stage results from the understanding of relationships and inter relationships.

Montessori maintained that morality cannot be taught but develops within the child as a personal construction. Because Montessori sees the (second stage) latency age child as having already mastered the basic symbol systems at an earlier stage, she proposes all areas of human experience, or "cosmic education" as the curriculum for the elementary school age child. Here, the child's imagination has free rein.

The secondary qualities or understandings that are appropriately associated with American Montessori education are common to both stages of development, but are operationally tailored to the particular "stage" needs of the children, in their particular setting. As the subcommittee develops narrations based upon the descriptors (which follow in 4.4.), it should comment on the adjustments the school makes to accommodate needs that are distinctive to each stage.

4.4. DESCRIPTORS

As indicated in Section Two, the task before the subcommittee is to develop a twelve to twenty paragraph narration on *six* essential qualities of Montessori education (identified here as descriptors). As it deals with each of the six descriptors, the subcommittee should (1) describe how the school provides for each of them, and (2) present an evaluative judgment of what the school does well in regard to each descriptor and an evaluative judgment on how the school can improve upon what it does in providing for each descriptor.

4.4.1. Quality Number 1: The Montessori Learning Environment

- *A Child-Centered Environment.* The focus of activity in the Montessori setting is on children's learning, not on teachers' teaching. There should be a very limited number of whole group lessons, and these appropriate to the particular children's levels of development. The narration should describe the school's practices in this regard.
- *A Responsive, Preparing, Adaptive Environment.* An environment responsive to children's emergent needs is one proportioned to their interests, abilities, and potential. It is both "prepared" in advance of the children's entry into it, and "preparing" in that its responsiveness to child need and evolving child interest as well as changing circumstance is on- going. The narration should describe how the school prepares the learning environment and give examples of how it changes the environment in response to needs.
- *Individually Construed Competence.* Within a Montessori setting, each child strives to realize his or her fullest potential in a socialized context. The narration should present the school's approach to this.

4.4.2. Quality Number 2: Montessori's Learning Activity

- *First hand Experience With Materials.* Children learn by acting on their environments. They need materials with which to interact. At whatever developmental level the particular child, there should be available materials to interact with as well as models of relationships, which Montessori characterized as "materialized abstractions." Many of these are embodied in other ways. The narration should describe the school's provisions and practices in this regard.
- *Spontaneous Activity.* Children spontaneously seek growth and development because it is in their nature to do so. The Montessori environment seeks to provide a setting in which children can "epiphanize" their true emergent selves. The narration should give examples of how this is provided.
- *Active Learning Methods.* The Montessori environment is one in which children pursue their learning intentions themselves. They initiate their work and persist in it until they have completed it to their respective criteria of completion. The narration should describe how this is accomplished.
- *Self-Directed Activity (Auto Education).* The child constructs his or her own intelligence, choosing his or her activity, fueled by the need to be competent. The child constructs his or her own morality, through social interaction with others. The narration should give examples of how a child constructs his or her own intelligence and morality.
- *Liberty within Limits.* The activity engaged in by the particular child in an environment, characterized by "liberty within limits," rests on the child's right to do what is normally and appropriately dictated by the particular culture and by the developmental level of the child narration should describe the school's treatment of liberty.

- *Intrinsic Motivation.* The motive force for learning in a Montessori environment comes from within the individual child. This drive toward competence is fueled by the child's curiosity and interest. Thus is the child's self-initiated activity considered its own reward. The narration should describe how the school activates and engages the child's curiosity and interest.

4.4.3. Quality Number 3: The Montessori Learning Relationships

- *Mixed Age (Family) Grouping.* In order to respond to the variety and unevenness of individual children's developmental needs (and as a reflection of Montessori's developmental schemata), classes typically group children across a three year age span. The narration should give examples of how this is accomplished by the school.
- *Social Setting as a Community.* The social setting is somewhat like that of an extended family. The emergent skills of individual children are harnessed for the good of the whole group. Children routinely demonstrate newly achieved competencies to one another. The narration should give examples of how this is done by the school.
- *Cooperation, Collaboration, NOT Competition.* Children are encouraged to support one another in their efforts at mastery. The life of the group is the context in which individual activity is seen. By having children do the same thing at different times, and different things at the same time, invidious comparisons between children are avoided. Montessori's developmental focus implies that all children will, over time, master the social system and the curriculum. The narration should describe how the school overcomes tendencies for invidious comparison and competitions.

4.4.4. Quality Number 4: The Montessori Spirituality

- *Child as a Spiritual Being.* Montessori saw beyond a purely materialistic view of the organism to the child as a spiritual entity, animated by a Divine life force. She saw the child as a spiritual embryo developing according to a definite plan. The narration should include a paragraph on how the school responds to Montessori's view of the spiritual development of children.

4.4.5. Quality Number 5: What the Montessori Teacher Is

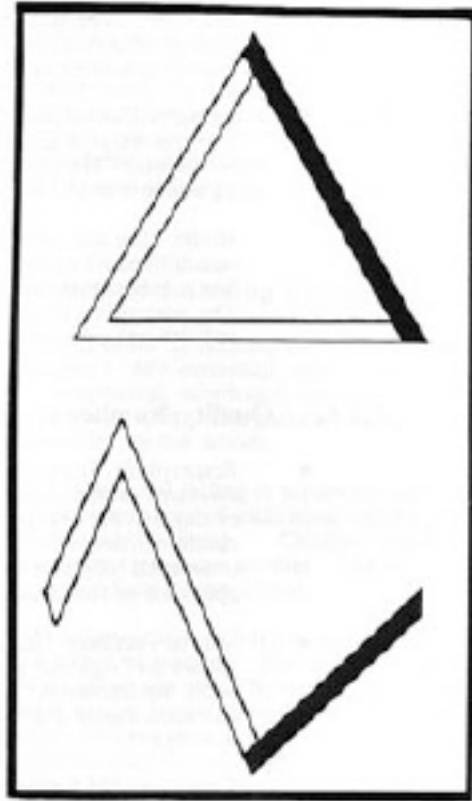
- *Authoritative.* The teacher is firm at the edges and empathetic at the center, the kind of adult who responds empathetically to children's feelings, while firmly establishing limits for the group. This teacher is peculiarly "American" (Rambusch 1962). The narration should describe how the teachers relate to students in regard to firmness and empathy.
- *Observer.* The teacher is capable of inferring the children's intentions through observations. The narration should offer examples of how the teacher functions as an observer.
- *Resource/Consultant.* The teacher is the source to which children may turn for help

in acquiring knowledge and the dispositions favoring its acquisition. The narration should describe the role the school defines for its teachers in this regard.

- *Model*. The teacher embodies the behaviors, dispositions, aspirations, and possibilities that the children experience in the Montessori environment. She presents intentionally and consistently her best self to the youngsters. The narration should indicate how modeling is a force in institutional policies and educational development.

4.4.6. Quality Number 6: What the Montessori Teacher Does

- *Respectfully Engaged with Learner*. The teacher is mindful of her awesome responsibility in facilitating the cognitive and moral development of those in her charge. She sees the responsibility in terms of individual children's needs for optimal development and of the need to create an intentional community. The narration should describe the school's approach to facilitation pedagogy.
- *Able to Facilitate "Match" between Learner and Knowledge*. The teacher knows the "rightest" response to the individual learner's need at whatever point the learner is, in his or her acquisition of new knowledge. The narration should express the expectations the school has of its teachers in this regard.
- *Environmental Designer/Organizer/Preparer*. The teacher can organize the appropriate social and cognitive environment for children at different levels of development, refracting through the curriculum, the expectations of the culture. The narration should express expectations the school has of its teachers in this regard.



SECTION FIVE

THE NATURE OF OUTCOMES

5.1. MEMBERS OF THE SUBCOMMITTEE

5.2. CONCEIVING THE OUTCOMES

This section of the *Guide* leads the school in developing a ten to fifteen paragraph narration on *Outcomes*. When this narration is combined with narrations on The Primary Nature of the School (Section Three) and The Educational Nature of the School (Section Four), the triadic entity concept of the school, which is the foundation for the self-study, will be complete. The Committee on

Conceptualization and Evaluation will then transform the entity concept into an action concept (Section Six). As are the narrations of The Primary and Educational Natures, the narration on Outcomes stems from descriptors (5.5;). The narrations on outcomes, as do the others conclude with two evaluative judgments, one that reveals what the school does well in regard to the outcome, and another that indicates how the school can improve on that same outcome.

5.3. DISTINGUISHING METHODS FROM RESULTS

The first thing the subcommittee should do is to discuss the outcomes *qua* outcomes. Like all educators of naturalistic tendency, Montessorians may find it difficult to separate the results of education from the activities that lead to them. Education, they say, is life, and the product of education cannot be separated from its processes. In fact, the "product" is so fully embodied in the "process" they often speak of the product as the process. Independence, for example, is not a behavior separate from the process by which it is attained. Learning the process of independence is, in fact, learning to be independent. Thus, independence is not an abstract value that is defined apart from life. It is an in-life disposition to go about doing things in certain ways. Likewise, academic competence is not an abstract noun to be contemplated by abstract measures. It is both the disposition and ability to enact appropriate academic procedures.

Accordingly, some Montessorians find it difficult to draw a clear distinction between methods and results. It is said in jest that if you ask certain Montessorians for the time of day, you may be told about the workings of a clock. After all, the time of day is simply an extension of that. But the point easily missed in this analogy is when you can read the time of day on the face of the clock *you know the clock is working*.

Moving to the school, how do we know if the Montessori methods are working? The Subcommittee on The Educational Nature (Section Four) describes how the methods operate. These narrations describe how the educational methods endeavor to attain Montessori outcomes such as social responsibility, intrinsic motivation, independence, etc. Now the narrations on The Nature of Outcomes must describe how these outcomes are observed. In other words *they tell us what we must see in order to know the methods are working*.

So, what behaviors are characteristic of a child who achieves the Montessorian version of independence, autonomy, intrinsic motivation, confidence, or social responsibility? Attainments of this kind are not measured by conventional tests. The only way to discover them is through observing the child's behaviors while in school and by following-up on life behaviors. Independence, as we have just said, can be defined as "a process of being independent." Now how do we discover if the child employs this process in times and places apart from the school activity that engenders it? The answer is we must learn to observe it in other in-school behaviors and learn to observe it in the child's life outside of school.

American educators know the results they want and what it takes to accomplish them. But they are often criticized for inability to say definitively that they *are* accomplishing them. Clearly, this is one of the reasons our lay public pleads constantly for more and more evidence of "outcomes." All educators must improve upon the ways they examine and report outcomes. The narrations the subcommittee develops by using this section of the *Guide* moves the school in that direction.

Returning to the clock: If, again and again, its face shows the correct time, we are not inclined to wonder whether the clock is working as it should. If, on the other hand, the mechanism cheerfully ticks away, but the "hands" do not move, we are bound to wonder if anything of worth is happening.

In the descriptors provided here some of the behaviors anticipated of children who attain Montessori outcomes are mentioned. Of course there are many other anticipated behaviors not mentioned. After the subcommittee is clear about the outcomes it plans to narrate it should then read and discuss the following overview of Montessori procedures and processes. This overview suggests a number of ways to observe Montessori outcomes. The subcommittee then turns to the descriptors and develops a narration on each. This narration should include (1) a description of the school's commitment to the outcomes, (2) a description of how the school observes and evaluates progress toward the outcomes, and (3) (as stated above) judgments about the school's strength and what can be improved in regard to each outcome.

5.4. OVERVIEW OF PROCEDURES AND PRACTICES

Montessori education in the United States appealed to those who embraced it because *of its outcomes*. The American parents who originally chose Montessori education for their youngsters did so because they saw in it a way to discharge effectively their educational responsibility. Montessori education matched their views of child rearing. They saw their children as moral beings who over time would become the socially responsible people Montessori had envisaged. In addition, judging from the success Montessori education enjoyed in other parts of the world, they saw their youngsters becoming confident, competent learners.

5.4.1. Outcomes Are Life-Long Developments

Montessori's view of education as a "help to life," considered from a developmental perspective, is a "womb to tomb" affair. In her writing, Montessori assumes that developmental stages succeed one another, with each building on what came before and anticipating what will come after. For the child to have an optimal experience, exposure to Montessori's pedagogical strategies, from the earliest possible moment, would be the most desirable. In fact, a child's point of entry on a Montessori continuum and the amount of time spent in a Montessori setting will determine the overall impact and efficacy of the child's Montessori experience. Clearly, the younger the child and the longer the exposure, the more effective the outcome.

Montessori's schemata of developmental stages places particular attention on the period from three to six years of age, the period she described as that of the "conscious worker." This is the period in which Montessori believes the child is integrating all of the experiences earlier acquired. It is also the period in which the dispositions toward learning and certain of the learner's traits are acquired, laying the foundations for what lies ahead. Successive developmental stages "play out" the same themes in different ways.

The original American Montessori agenda of learner outcomes included, but was not limited to the following:

Montessori education develops children:

- who are moral beings.
- who are confident, competent learners.
- who are independent.
- who are autonomous.
- who are intrinsically motivated.

- who are academically prepared.
- who are socially responsible.
- who are free within limits.
- who are spiritually aware.
- who are able to handle external authority.
- who become citizens of the world.
- who become stewards of the planet.

Both parents and teachers understand that the acquisition of these dispositions and traits is the work of a lifetime. They see Montessori education as a process which would initiate children into living a life-in-community which features these dispositions and traits, but does not insure their acquisition *within the specific time span of the children's Montessori schooling*.

For this reason it is appropriate for Montessori schools to follow the progress of the children as they move into other kinds of schooling and even into later life. Some Montessori schools do this now and more of them must begin. Without the insight that comes from follow-up study, the enduring character of Montessori outcomes can only be a matter of speculation. All that can be known about life-long effects are inferences drawn from observed changes of in-school behaviors. As good as this may be, it is not enough.

After more than thirty years of rapidly expanding Montessori education in the United States, it is now possible to see how Montessori children have “turned out”, and whether the seeds sown through their early experiences have borne the fruit their parents earlier envisaged. It is noteworthy that many of the parents of the first American generation of Montessori students were Montessori professionals. Many of these now grown-up individuals are now themselves Montessori professionals and are extending the work into a second generation.

5.4.2. Outcomes Can Be Observed in School

However, as important as follow-up study may be, the school need not wait for this kind of information in order to know more about its outcomes. There *are* in-school behaviors that indicate whether the child’s development is headed the way Montessori intended. In all outcome areas there are developmental “milestones” that can serve as indicators of progress. Good Montessori teachers approach these indicators with disciplined observation and trained intuition.

One example is Montessori’s view of confidence. Confidence is built upon success. In a Montessori environment, there are many occasions for success. Respect for the child’s efforts and the realization that the child constructs his or her own intelligence guards teachers from premature judgment regarding the quality of children’s efforts. It can be intimated that a child growing in success is growing in confidence. Can the school gauge in some way if every child is experiencing enough success to warrant the conclusion that every child is growing in confidence?

Montessori believes that once children acquire a particular skill, they are impelled to turn it to productive social use. Thus, the child having a chance to revel in newly acquired mastery is both celebrating his or her own competence and announcing to the world at large that

particular competence may now be placed at the service of the group. This provides opportunity to observe both developing confidence and developing social responsibility.

There are other examples of outcomes that are observable in the school. The social and physical organization of the Montessori class as well as the mediating behavior of the teacher promotes individual children's *independence*. Can it be confirmed that the environment does promote independence? Children are shown how to choose their own "work." How to take it from the place it is customarily displayed to the place it is customarily used and how to use it. They are then invited to use it, until they consider that they are finished with it. They are shown how to return it to its original place in its original condition. In this environment choice triggers a stream of independent behaviors that over time are acquired by all of the children in the particular group. This "completed cycle of activity," as Montessori calls it, is easily observable.

Once each child has chosen what to do and has chosen the material and the activity, for the length of time the child is doing it, the materials and that activity are owned by that child. Once the material is returned to its proper place, its ownership again reverts to the whole group. Here again is a behavior that reflects independence within the context of social responsibility.

Moving to another example, if a child wishes to work with another child, that child is free to negotiate with the other. However, if the other would rather complete the task alone, he or she is free to do so. The first child then tells the second child of this decision and the second child then waits until the first has finished. This kind of negotiation, again easily observable, protects the first child from unwarranted interference and protects the first child's *autonomy*. This negotiation also enhances the second child's skills of persuasion.

Intrinsic motivation is another observable outcome. The American Montessori teacher echoes Montessori's disdain for prizes. The "work" is clearly "its own reward" in a Montessori class. One should see no gold stars, stickers, or "smile" stamps on the children's work. Children doing things for their own sake or doing things well for the sheer joy of doing things well are developing intrinsic motivation. This is easily observable. The teacher simply discerns why the child is doing things. If the child constantly turns to the teacher or others for approval, the motivation is probably not intrinsic.

Children in Montessori classes are "free" within the carefully crafted limits of the group. These limits are articulated, in the course of the school experience, in two important ways. The teacher is the embodiment of the limits, and the limits are externalized in the physical classroom organization. The child who cannot understand or accept limits is not developing *freedom within limits*. The child whose behavior changes voluntarily at the approach of limits is acquiring *freedom within limits*.

Various parts of the environment are designated for particular kinds of activities and for specific numbers of children who may work in them at anyone time. Once the children have been told what these designations are, there are signal systems put in the environment to remind them. When the children appear to be ignoring the designations, the teacher gathers them together and goes over the original "ground rules" to remind them where and how to work. Here the children are coming to terms with *external authority* and *acquiring social responsibility*. The properly sensitized teacher can easily "see" these outcomes.

Montessori called her didactic apparatus "materialized abstractions." In her view, through children's manipulations of these materials, children achieved first perceptual and then cognitive understanding. Although the teacher models ways to work with these materials,

Montessori herself envisages children exploring with them, based on her understanding that "things have an infinity of attributes" and reveal ever new relations to children in successive interactions. Because the materials and activities function as an embodiment of cultural expectations, it is eminently reasonable to conclude that children in Montessori settings are mastering the appropriate curricula. Whether they are or are not is easily verifiable.

The Montessori environment is seen as a small community within which the individual child finds a place, both as an individual and as a member of a group. The social setting promotes social responsibility. The clear boundaries of the Montessori setting linked to the authoritative role of the teacher provide the child with experience in handling appropriately external authority. Observing the children closely as they live and work together in the environment will reveal whether they are developing *social responsibility* or ways of handling *external authority*.

Observations should be systematic and disciplined. Observers should keep in mind that Montessori's own considerable powers of disciplined observation contributed greatly to her powers as an educator (Stoops 1989). From the earliest experiences of negotiating and adjusting one's behavior with other children through attention paid to the folkways of people of various cultures, Montessori education intends children to move far beyond the family and school, toward becoming *citizens of the world*. Personal responsibility is configured in successively broader terms to include an awareness of the importance of stewardship of the planet. The movement toward "world citizenship" should be well begun before the child leaves the Montessori setting. The school is clearly in a position to observe if it is underway.

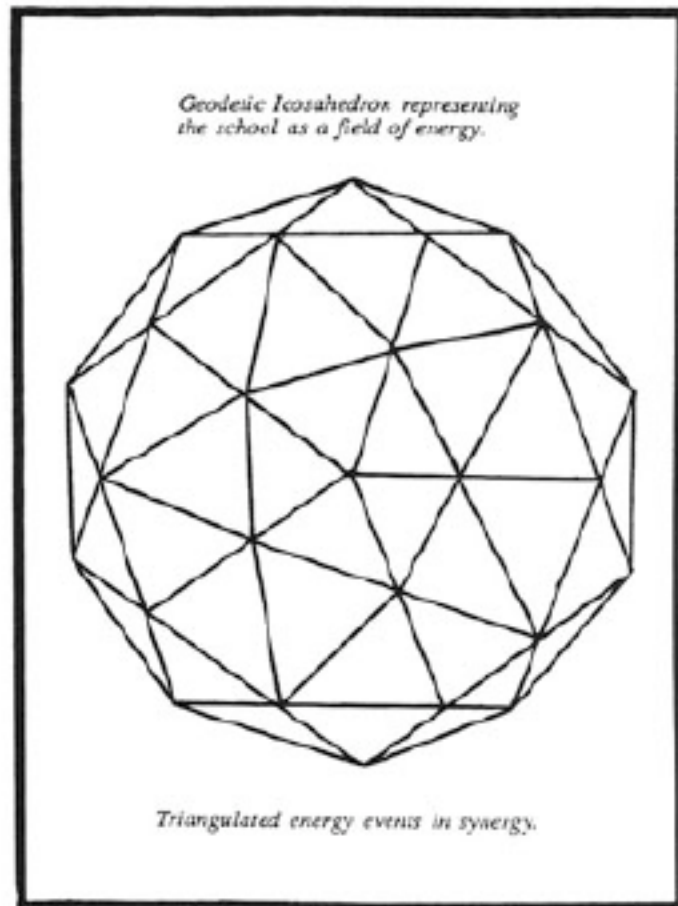
5.5. DESCRIPTORS

The following descriptors are presented to the subcommittee for use in developing the ten to fifteen paragraph narration on outcomes.

- *Independence*. Is the child able to choose his or her own work, apply energy to that work, complete it to a personal criterion of completion, take and return the work to the place it is customarily kept, in such a way that another child will be able to find the work ready to do? Is the child able to seek help? Is the child able to locate resources to continue the self-chosen task, without necessarily involving the teacher?
- *Confidence and Competence*. Are the child's self-perceived successes far more numerous than his or her self-perceived failures? Is the child capable of self-correcting work, upon observation, reflection, or discussion? Can the child manage the available array of "stuff" with a clear sense of purpose?
- *Autonomy*. Can the child accept or reject inclusion in another child's work or work group with equanimity?
- *Intrinsic Motivation*. Is the child drawn to continue working for the apparent pure pleasure of so doing? Does the child, once having achieved a particular competence, move on to revel in mastery, by showing others?
- *Ability to Handle External Authority*. Is the child able to accept the "ground rules" of the group as appropriate in his or her dealings with other children? Is the child, distant from the teacher, able to function as if the teacher were nearby?

- *Social Responsibility.* Independent and autonomous persons are always a part of a group and must attain independence and autonomy through participation in group activity. The loss of these qualities by one of a group is a loss for everyone. Do students attain independence and autonomy and, at the same time, develop social responsibility?
- *Academic Preparation.* In Montessori education, children learn to learn by learning. Academic preparation entails activation and cultivation of inherent powers and processes through which the learner becomes a supplier of meanings or of things-meaningfully-known. Academic skills are essential to learning and knowing, not the aim of learning and knowing. Do students acquire academic skills and apply them in learning to learn?
- *Spiritual Awareness.* Montessori views the child as a spiritual embryo. Implications are conveyed by the metaphor. All humans are spiritual beings as well as physical beings. They have spiritual health as well as physical health. Montessori sees no need to establish whether or not the source of spirit is theological and does not offer theological explanation. The spiritual embryo simply thrives on spiritual investment. The investment can be theological, humane, or a combination of the two. What are the spiritual outcomes of school experience?
- *Citizens of the World.* All children are part of both a world political system and a world ecological system. Both systems have their constitutions and all must learn to live by the letter and spirit of their laws. As a naturalist, Montessori knew about the laws of man and of nature and understood the consequences of disobeying either of them. What are the citizenship outcomes of school experience? Are the children acquiring civic virtue? Are they acquiring dispositions to understand the natural world, to cherish it, and to live harmoniously within it?

6



SECTION SIX

EVALUATION BY HOLISTIC ANALYSIS

6.1. MEMBERS OF THE COMMITTEE

6.2. SYNERGY AND DISCOVERING THE ENVIRONMENTAL PRESS

As the three Phase I subcommittees near completion of their narrations, the Committee on Conceptualization and Evaluation becomes organized for its Phase II responsibility. That responsibility is very important because during Phase II *the entity concept is transformed into an action concept and the self-study becomes the school's evaluation*. Therefore, the Committee on Conceptualization and Evaluation is the Committee that establishes the *action concept* in this concept-based self-study and revises *all Phase I evaluative judgments* in the light of that.

The work of the committee begins by study of the narrations and judgments rendered by the Phase I subcommittees. The purpose of that study is to begin consideration of how the various parts of the school described in the narrations interact or inter-behave with one another. By doing this, the committee's thinking moves upward, above the parts, and begins to contemplate the whole school. This entails a different kind of intellectual discovery than comes of separate part-by-part examination. *The committee begins to discover synergy.*

Synergy is what else occurs when separate parts operate together in synchrony. Of course, each of the parts has its own separate behavior, but when two or more parts behave in synchrony there is something more, something added. When parts work together, other energies appear that are not explained by the behaviors of the separate parts alone. For example, two or more instruments playing together create musical effects different from one instrument in solo. In his seminal work on human relationships, Martin Buber points out that when two are together in spirit (I and Thou) a third universe is created. A salad alone and addressing alone are unpalatable, but together they become a synergetic treat. Metal workers know how to combine metals to form an alloy that has characteristics entirely different from any that are used in the combination. *Synergy* is defined as the behavior of a system that is not explained by the separate behaviors of its parts (Fuller 1975).

Fundamentally, all elementary schools have the same parts. It would be hard to find one that did not have a legal personality, a school community, a faculty, educational programs, learning materials, and so on. It is within the energies that emerge from the parts working together that differences among schools can be seen. In other words, elementary schools acquire distinctiveness from their *synergies* not from their *parts*. Therefore, in order to recognize the particular nature of a school we must contemplate its synergies.

Furthermore, when synergies are united with other synergies they create synergies of their own. Accordingly, synergetic thinking leads also to recognizing the *synergies of synergies*. Preserving these higher synergies enable the human imagination to begin to intuit the "higher energies" that characterize the school environment and give it a specific "environmental press." As used here the term "environmental press" refers to the high energies that emerge from the whole of school operations. These are readily observable by discerning visitors. For example, is the school a nurturing environment? Is it dominated by social values? By academic values? By specific cultural values? The "environmental press" of a Montessori school should certainly reflect at least some "Montessori values," but even in this there is room for prioritization. Not all Montessori environments have the same synergies. The high energies of some may be toward the extended family, of others toward Christian formation, of others toward cognitive development of others toward social responsibility, or of others toward world citizenship. Such differences are more than mere nuances and none of them are beyond the range of Montessori practice (see Notes, *Environmental Press*). As shown in Figure 7 the route of the imagination toward a *holistic action concept of the school* is analogous to climbing a *synergetic stairway* which enables the imagination to characterize the kinds of energies the parts of the school generate when they work together. The resulting "press" is felt by the child in the child's experience of the school. When we identify the environmental press of a school we are beginning to intuit the school that exists within the life of the child, *and that is the school we must understand, evaluate, and accredit.*

Having considered the environmental press and the relationship of parts to the whole, the committee now examines *environmental action*. If the committee is right in its judgment of the environmental press this will be confirmed by the generalization it is able to form about the school's action. In fact, the committee now asks itself: Is the action of the school in coherence with the press of the school's environment?

HOLISTIC ANALYSIS AND EVALUATION

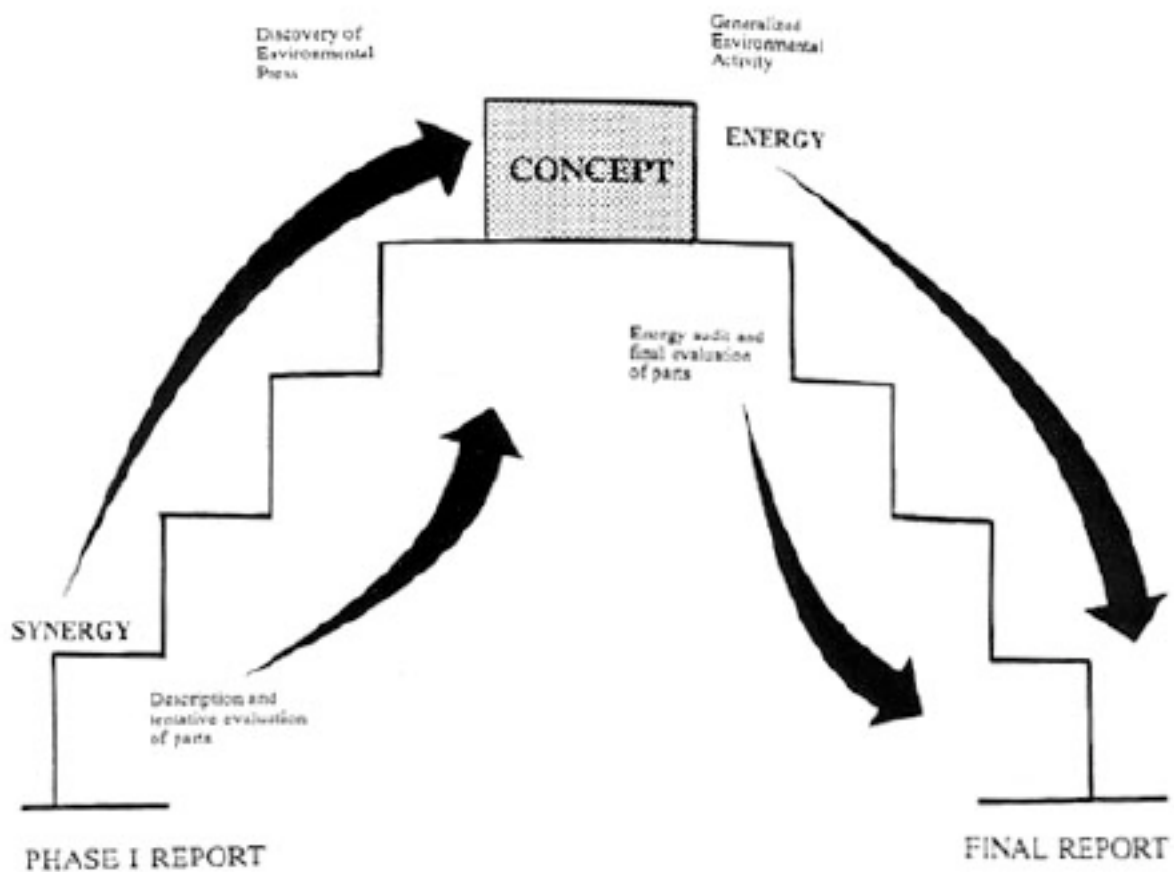


Figure 7. Steps upward to the concept entail the discovery of environmental press and generalization of environmental action. Steps downward from the concept entail discovering the entropy/syntropy of the synergies and the parts.

6.3. PATTERNING (Finding the Action)

It is interesting to observe action concepts form. Formation usually begins with patterning the events (or actions). Imagination, that special gift which has raised humankind from the abyss, is the highest faculty of the intellect. No one knows why, but a child taken beneath a night of stars will wonder at the bright dots that spangle the huge black umbrella above him. Guided by a loving parent the child sees big and little dippers, bears, serpents, perhaps even a human countenance. As this goes on the child, now aglow with discovery, will exclaim, "and there I see a butterfly..." And, for the first time, the elder kinsman will see a butterfly among the stars.

Philosophical interest in intellectual patterning stems from ancient times. It is said that Aristotle spent much of his first honeymoon on an island beach organizing and classifying seashells. It was then that the world (certainly his bride) knew it had a philosopher. A classic example taken from medieval literature is *Occam's Razor*. William of Occam (c. 1285-1374) brought a critical attitude to the metaphysical discussions of his time. His *Razor* sometimes called the *principle of parsimony* is a method of economy in explanation. To his contemporaries he protested, "plurality is not to be assumed without necessity." To put it another way: If a simple explanation suffices, don't complicate it. Or, even more succinctly, *the simplest hypothesis is the best* (Russell 1939).

This principle has been put to work in training evaluators for school evaluation teams, especially those who are trained to lead concept-based evaluations. Often in the evening conferences the team will raise the question: *What is the razor here?* That is another way of asking: *What is the action here?* And the evaluators will begin discussing the patterns they see which will lead them to an action concept.

Might there be more than one *razor* in the school? Possibly. But their reality is usually co-dependent. Action concepts may not always be as lean as the principle of parsimony would ordain. But if plurality weighs heavily, it is well to recall Occam's plea, "plurality is not to be assumed without necessity."

Again, an action concept does not pretend to convey an absolute truth. Its worth consists entirely in its usefulness in establishing a meaning for a mass of otherwise confusing or contradictory parts. Of explanatory concepts Alfred North Whitehead once remarked, "hang it all, we don't have to go behind these things... we begin with them." The instrumentality of these concepts was also the theme of an influential essay by William James (1907).

...(these) ideas become true just in so far as they help us get into satisfactory relation to other parts of our experience, to summarize them and get out among them by conceptual short cuts instead of following the interminable succession of phenomena. Any idea upon which we can ride, so to speak; any idea that will carry us prosperously from one side of our experience to any other part, linking things satisfactorily, working securely, simplifying, saving labor; is true for just so much, true in so far forth; it is true instrumentally.

In his own time and words James advocated the parsimony of Occam, "you must bring out of every word its cash value; set it at work in the stream of your experience. ..." He then puts his formidable powers behind the uses of the action concept in improving things by saying, "theories thus become instruments ... we don't lie back upon them, we move forward; and, on occasion, make nature over by their aid..."

Five kinds of events in a field. Four occur at random; one appears as a pattern. the human mind at play or work finds patterns. The mind will not abide chaos; consistencies bring relief. Patterns obtrude, and we discover *the Razor*.

6.4.1. Sample Concept Statements

Here is a sample where the environmental "press" is found to be an extended family and the nurturing values of Montessori dominate the action.

The syntax presents that first:

(We are an extended family)
Primary Nature

(which uses Montessori methods)
Educational Nature

(to achieve an enriched nurturing of our children.)
Nature of Outcomes

The concept writers may need to add a phrase or a sentence to one or more of the above natures.

Here is a sample of a two-sentence concept where both the environmental press and action foster a child development ecology. Its syntax places the educational nature first:

(We are a house (habitat) for child development that creates
Montessori environments and uses Montessori methods.) *(We are
Educational Nature*

incorporated as a not-for-profit parent cooperative;) *(and we
Primary Nature*

achieve _____, _____, and .)
Nature of Outcomes

Here is a school whose environmental press and action are toward being a learning community:

(We are a learning community of learning families) (that uses
Primary Nature

Montessori methods) *(to achieve _____, _____, and _____.)*
Educational Nature *Nature of Outcomes*

Here is a church-related Montessori school that has environmental press and action intended for human formation:

(We are a center for Christian formation) (that uses Montessori
Primary Nature

Principles of moral, spiritual and cognitive development) (to
Educational Nature

achieve _____, _____, and _____.)
Nature of Outcomes

Here is a privately owned and operated Montessori School:

We are a privately-owned Montessori school dedicated to services
for a community of families interested in holistic child
development.) (We use Montessori methods and
Primary Nature Educational Nature
materials with emphasis on moral and cognitive development) .(to
achieve _____, _____, and _____.)
Nature of Outcomes

It almost goes without saying that the concept statement need not name all descriptors used by the Phase I subcommittees as long as none of them are logically excluded by the statement of the concept. The *action concept simply establishes the action* of the school in such a way that it becomes *a logic for the school. It is the logic of the action that matters; the details at this point should be known by the school community.*

6.5. VALIDATION OF THE CONCEPT

Belief is an important source of institutional energy. *Belief converts energy into action.* Turning that around, there may be good concepts in which no one believes. Where there is no belief, there can be no sustained energy-for-action; and, above all, a school must be a non-stop, day-in and day-out action. So the first "proof" of the concept statement is whether the school community responds to it by saying, "yes, that is who we are; yes, that is what we want to be; yes, that is what we want to do; and yes, that is what we accomplish." (See Notes, *Action Concept*.)

So, the first thing the committee must do is test its action concept statement on the school community. The committee should meet with discussion groups and ask: Does this say who we are, what we do, and what results? Is it clear? Is anything of significance logically excluded? Even though the concept statement is brief, it is more than a slogan. It includes performative expectations. The school community must understand it and believe in it.

There is another proof, one that is implied by the old saying, "the proof of the pudding is in the eating." This, of course, is proof by trial. If the community accepts the definition, the committee then puts the concept to work. They do this by using it to revise the tentative evaluative judgments rendered by the Phase I subcommittees. So, having gone up the stairway of synergies, up through the parts, up to the whole, the committee now descends from the whole back through the parts (see Figure 7). During its upward trip the committee discovered the higher energies that constitute the environmental press. By patterning and imagining the committee generalized the action of the school and developed a statement of the action concept. Now, as it moves downward again from the whole to the parts, the committee has the *synergetic advantage* (Fuller 1975). This advantage comes from being able to use the action concept of the school in reviewing the evaluations of the parts. Having conceived what the action of the whole school ought to be the committee is now able to estimate the energy each part and each synergy contributes to the whole.

6.6. INSTITUTIONAL ENTROPY

Reading through oral histories given by those who taught in America's rural (one room) schools (Rinehart 1983), one is quickly convinced these small school communities and their teachers had a

clear concept of what the schools were there to do and all the energies available were put to "good use." Every aspect of life in and around these one-classroom buildings was put to the service of the concept. This, among other things, included cleaning, heating, furnishing, and feeding. Older students taught the younger, and as the younger learned the older learned more about that which they already knew. All available energy went into the concept. There was very little *institutional entropy*.

Entropy is a word coined midway through the Nineteenth Century by British scientists researching applications of the first and second laws of thermodynamics. It is a measure of the disorganization within a system, which prevents energy from getting to the work that it is supposed to do. Although studies of entropy originated in the field of mechanics, they soon spread to other fields. These wider uses of the term are mainly of academic interest only (see Notes, *Entropy*). The term is used here to identify resources within the school that do not deliver their energy to the action concept of the school.

Modern American schools have many more resources than the rural one-room schools from which they emerged. But the latter seemed clearer about the activity expected of them and were highly ingenious in using their limited resources in conducting that activity. Sometimes the more abundant resources of modern schools become their own problem. It can happen that our modern resources become devoted to their own maintenance and increase. Rule One of Entropy in Education is: *Resources, once in place, look to their own increase.*

Entropy is a serious matter; and, unless evaluators are careful, they can add to it. For example, let's say evaluators find the action concept of the school requires the students have more personal counseling than they are getting. But all too often, however, the counselors the school already has are not doing as much counseling as they could do and as it was originally intended they would do. Instead, counseling energy is devoted to the artifacts of counseling, to meetings, to other staff development, to curriculum, etc. By the standards of entropy expressed here, such activity is entropic. The evaluator who recommends adding counselors without calling attention to the presently existing level of entropy may cause the school to bring in more counselors who, likewise, might not deliver their energies into counseling and would simply increase the entropy.

The late Buckminster Fuller had a remarkable flair for applying thermodynamics and quantum mechanics to the wider realms of human experience and bold enough to advise the world on its stewardship of "spaceship earth." He pointed out that the radiation of the sun is entropic. However, he observed that earth has trillions upon trillions of syntropic agents, which convert this radiation to positive uses. The properties within an agent or system which convert energy to positive uses he called *syntropic*.

This gives vision of an entropy/syntropy continuum. The properties of any part of the school that withhold energy from the action concept are entropic. The properties of the same part that energize the concept are syntropic.

It is the action concept that enables the committee to estimate the place any part or synergy of the school has on the entropy/syntropy continuum (see Figures 10 and 11). This estimate can be called an "energy audit" (Fuller 1983), wherein the concept is represented by the line that separates entropy and syntropy. It is analogous to the line on a financial ledger that separates debit from credit or similar to the point on the algebraic continuum which separates the negative and positive numbers.

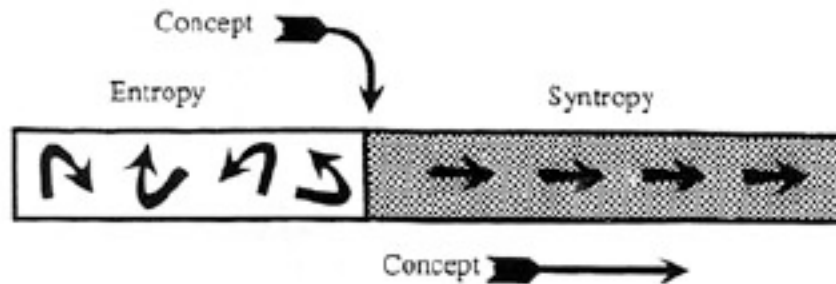


Figure 9: The entropy/syntropy continuum. Because of internal disorganization, much of the energy generated by this part of the school is entropic, which means it is withheld from the concept. Energy released into the concept is syntropic. The more syntropy the better.

Admittedly, it takes imagination to use the action concept this way. Sometimes it is a hard thing to do because we often find school activities that we like very much do not help energize the action concept and may even draw energy away from the action concept, and it may hurt to say so.

The art of evaluation is to develop recommendations that enable an entropic part of the school to become *syntropic*. A part of the school that is syntropic not only releases its own energy into the concept but also gathers energy from sources outside of itself and releases that energy into the concept.

To illustrate this further we momentarily move away from elementary education to look at one of America's highly visible educational dilemmas:

A small university with a self-concept dominated by high academic ideals suddenly acquires a highly talented football staff that recruits well and soon find the team is a "contender" for the "national championship". This is a familiar scenario. Each night the University is on the evening news. On Saturday afternoons the campus is overrun by throngs; cars are parked everywhere; sidewalk vendors rise from the pavements. Now the University is a "big football school." The band acquires eighty-five additional trombone players. Mascots prowl the sidelines in full costume. Maidens bounce about and are occasionally tossed in the air. Now the University has "fans," and its name begins appearing on coffee mugs, trays, t-shirt, pennants, decals and various garments sold at airport terminals thousands of miles from the campus.

Is this football team entropic? Does it contribute energy to the concept of the University? That will be seriously debated by the entire University community. The faculty would say it is entropic. They will point out that the energy output contributes nothing to the concept of a university and that the whole thing draws energy which would otherwise contribute to that concept. They despise the cynicism of student athletes who play but do not take degrees. They complain of the exploitation of young people, and they conclude the algebraic sum of it all comes to a negative number. They want this great football team to go away.

But the alumni and trustees hold a different view. They argue alumni contributions are up, student applications are up, and research grants seem more available. More people know about the university. Revenues from tickets and TV go into student assistance. So they are convinced all of it is syntropic, and the more the better.

Notice neither side complains the football team is not a good one. Actually on any scale of excellence it may come off as the best thing on the campus. There is not a simple answer to this issue, but it has enough history to warrant concluding that in universities whose self-concept is dominated by academic ideals, football programs are usually scaled back to fit the concept of the university.

That is how we evaluate the football part of a university. Never mind how many the team wins or loses.

There is always more energy available than anyone realizes. Being able to call attention to it is one of the gifts of leadership. Showing ways to make this energy syntropic is another gift of leadership. The greatest entropic energy of any Montessori school could be simply called *love*. *What radiation is to the sun, love is to a Montessori school*. The children, the parents, the teachers, and even the community all "radiate" love. This includes love of each other, love of learning, and love of the school. Unexpressed love is an entropic phenomenon. Unless the parts of the school are syntropic to it, the energy of love is not used.

6.6.1. The Energy Audit

The Committee on Conceptualization and Evaluation looks for entropy the way a prospector looks for gold. Can the committee discover the energy that is currently locked up in various parts of the school and think of ways to release it into the concept? What syntropies can we devise to get more energy out of the parts and into the concept? For example, a part of the school in low morale or internal strife is turning its energy inward. It is entropic. To be great a school must use its energy efficiently. It must use whatever it has to good effect.

It is the action concept that enables the Committee on Conceptualization and Evaluation to situate each part or synergy of the school on the entropic/syntropic continuum.

So the "energy audit" can reveal a school with excellent parts is in reality only about fifty percent efficient. In such a school tremendous improvements could be attained without adding to the school's expenditures. Sometimes syntropy requires new money. If a dollar's worth of acquired energy, used in the right way, would release ten dollars worth of bottled up energy from parts of the school that are in deep entropy, it would certainly be money well spent. Its use would have strategic merit (see Section 7.1.). This is the essence of *strategic thinking* and *strategic planning*. More about that later.

6.6.2. Selection of Parts for Audit

In Phase I of the self-study the three subcommittees described and evaluated a number of the parts of the school. The Subcommittee on The Primary Nature developed narrations on the legal personality; the students, families, and community and the staff, facilities, and finances. The Subcommittee on The Educational Nature narrated on six qualities and all but one of the six had sub-parts. The Subcommittee on The Nature of Outcomes reacted to ten different Montessori outcomes.

Now, with the action concept fully developed and stated, the Committee on Conceptualization and Evaluation is able to see that some of these parts are more critical to the concept than others. To proceed with the audit, the committee should first identify the parts described in the Phase I narrations that are most critical to the concept. A good guide to this would be to name about one third. Although the committee must attend to all that are in the Phase I narration, "most critical" should get strong attention.

The audit itself is informal. The committee simply estimates the location each part deserves to have on the entropic/syntropic continuum (see the illustrations). Parts judged to be highly entropic are parts in dire need of improvement. Parts that are judged highly syntropic need little or no improvement.

The judgments are subjective but the subjectivity is disciplined by rigorous use of the action concept and further disciplined by the specific question that leads to the judgment, and that is: What proportion of the Institutional energy contained within that part (or synergy) is released into the concept and what proportion is either withheld or diverted elsewhere?

Having looked carefully at the parts critical to the concept, the Committee deals with the other parts in the narration in accordance with the logic that has been established.

For example, if the legal personality or the parents are not among the parts that are critical to the concept, the committee may do nothing at all to the narrations or simply edit them in ways to bring about good logical alignment with what else is said in the report.

This selection of parts for audit, the audit itself, and the subsequent logical alignment of the full narration emphasizes again and again the critical importance of the *action concept*. At this stage of the self-study the action concept provides the focus. It tells the committee what to include and what to omit, what to emphasize and expand upon and what to move into the background, what to select for audit and what to amend.

This may need an example for the meaning to be clear. Suppose we are evaluating a plumber. The action concept of a plumber might be:

<u>(I am a 36 year old man)</u>	<u>(who utilizes the skills associated with plumbing)</u>
<i>Primary</i>	<i>Vocational</i>
<u>(to install water supply and drainage systems in homes.)</u>	
<i>Outcomes</i>	

ENERGY AUDIT

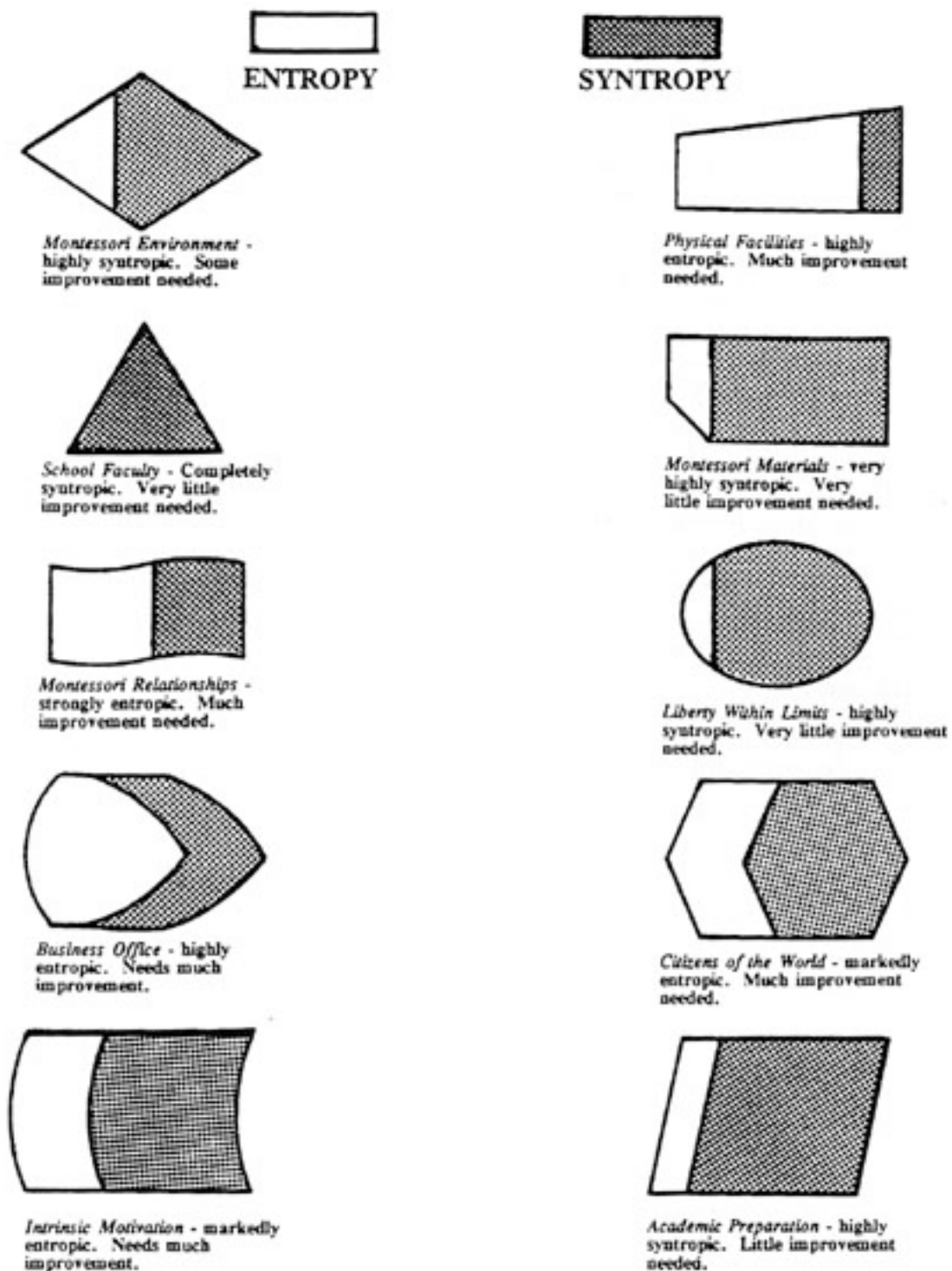


Figure 10: Estimated position of selected parts on the entropy/syntropy continuum.

Now what parts of this thirty-six year old man are important to the action concept? Certainly his manual dexterity, business judgment and manner, eyesight, mathematical ability, tools, work habits, etc. What parts are less important? Perhaps things like tonsils, hair, tennis stroke, religion, favorite foods, etc. Of course everything together makes the whole plumber. But there are some things more important to his plumbing than others. So we will audit those things that are essential, not everything. If our concept would be of a hairdresser, film actor, car salesman, jet pilot, or something else, the critical parts may be different.

Likewise, the difference in school action concepts will determine the parts selected for audit. When the time comes for the committee to develop the final report it will attend only to the parts selected for audit and have all others the way they were developed by the Phase I subcommittees. It is possible that even after audit there may be no change needed in one or more of the parts selected for audit.

6.6.3. Identification of Synergies for Audit

The Phase I subcommittees did not deal with synergy. So in the identification of synergies for audit the Committee on Conceptualization and Evaluation is completely on its own. Its only tool for the selection of synergies is, again, the action concept. On the way to establishing and phrasing the action concept the committee was obligated to examine the synergies of the various parts. When the committee was able to discern the "environmental press" it intuited the synergies that are critical to the action concept. So in selecting synergies the committee finds itself on familiar ground. At this point, it can be assumed the committee knows the synergies that are critical to the concept.

Here again, illustrations may be helpful. In a typical parish elementary school the synergy of parish clergy / administration / board is nearly always critical. The same combination may not be nearly as important in a typical Montessori school. But in a Montessori school the action concept may show the synergy of faculty / administration / child study team / special education may be critical. In a public school the synergy of faculty / environment / outcomes may be a critical one.

One thing to be noticed and dealt with is the possibility that all or some of the parts that participate in a given synergy may be weak (according to the Phase I Report), but the synergy is good. Likewise all of the participating parts can be assessed as strong, but the synergy is not. How can strong parts create a weak synergy? Everyone knows the answer to that. They may be so strong in and of themselves that they have difficulty synergizing because they are focused upon themselves.

The number of synergies considered should be between five and ten, certainly no more than ten. In identifying and describing these synergies and presenting its audit of them, the Committee on Conceptualization and Evaluation is introducing material into the report that is new (i.e., not dealt with in Phase I). Furthermore, the committee should recognize that this new material is very important because *the synergies are the elements of the school that make it the distinctive thing that it is within the life world of the student.*

As said elsewhere in this *Guide*, synergies are not dealt with by the Phase I subcommittees. Therefore, the Committee on Conceptualization and Evaluation must decide how to include them in the final report. At this advanced stage in the self-study, a logic will have developed which will guide the committee to a decision on how to include the synergies in the final report. The committee can create a special section and put all of them there or it can weave them into the text of the report at appropriate places. Very often the

strategic plan, which follows the school's self-study and evaluation, is aimed at increasing *the syntropy of the important synergies* or at the creation of new highly-syntropic synergies that will improve the school's fulfillment of its action concept.

6.7. EVALUATION OF POLICY

At various points in their history schools may have become involved in doing things that seemed good for one reason or another. For example, some Montessori schools may have started as day care centers and continued with day-caring long after the regular school became fully operational. Other schools may have been persuaded (usually by a few enthusiastic parents) to start upper grades, and they may now be struggling to accomplish just that while neglecting programs for younger children. The action concept should help sharpen institutional *focus*. Is the day care still needed? Can we sell it off? Should we take on a partner school when going into higher grades? The day care center, which was at one time the "mainstay" of the school's finances, may have become entropic. Likewise, the upper grades that drain off more energy than they return also may be entropic.

Indeed, the action concept should strengthen decision-making at all levels. It will enable the school's policy maker to position the school more comfortably in the broader social and economic context from which it derives its primary nature and keep it from being at odds with its natural support systems. In decision-making, the action concept becomes the "fixed star" of the school's navigation system. It enables the school to know if a choice moves energy into its concept or diverts it from its concept.

The action concept can also help market the school. Families looking for a place to educate their children always react well to a strong and clear action concept, even when they don't necessarily agree with it. A school that reflects confidence in what it is, and operates by clearly stated policies that are in self-evident coherence with a strong action concept, gets high marks from parents and public. Visiting evaluators from accreditation agencies usually interview parents. One of the favorable comments they often hear is: "They know where they stand. I don't agree with them completely, but these are the kind of people I want in the life of my child..."

6.8. THE EVALUATIONS

The evaluations rendered in Phase I must be reconciled by the action concept. Some are unchanged, some are changed, and some emerge as even more important than before. In some instances the committee might conclude the school can get more useful energy from this part or that part by dealing with it in other ways than indicated in the Phase I evaluation. Estimates of entropy (energy turned inward) may reveal that adding to the part (as evaluative judgments often recommend) will not necessarily release more energy into the concept (see 6.6.). For example, it's not unusual that an evaluative judgment will recommend adding a psychiatrist, a business manager, an administrative assistant of some kind, or a teaching assistant. Careful holistic analysis will reveal that unless care is taken these additions may simply add to the entropy and could even drain currently well used energy from other parts of the school. Then, as we have already said, there may be a part of on-going school operations that functions

ENERGY AUDIT OF SELECTED SYNERGIES

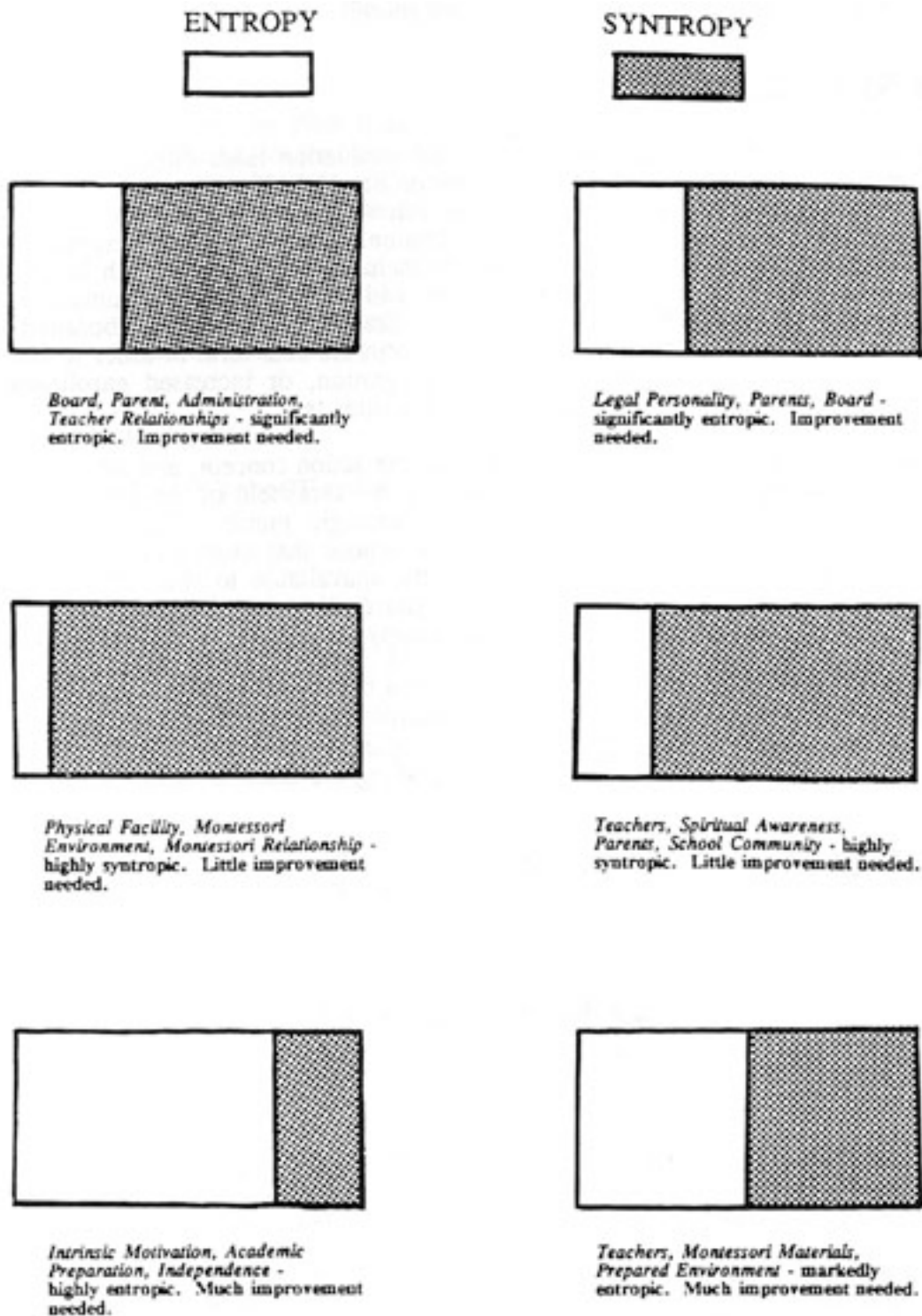


Figure 11: Estimated position of selected synergies on the entropy/syntropy continuum.

beautifully in and of itself, but contributes little to the action concept of the school. Of such things, the evaluators can recommend adaptation or discontinuance, remembering always that the creative side of the evaluation is making the most of anything that can contribute to the whole, and also reducing or getting rid of things that do not.

6.9. THE STRATEGIC PLAN

The work of the Committee on Conceptualization and Evaluation leads directly into strategic planning. One of the central tasks of the Committee on Strategic Planning is the formation of a *mission statement*. As is probably now evident, the mission statement is simply an elaborated statement of the action concept. One of the elaborations is usually in the expressing of a purpose or intention. The mission statement usually includes a statement that begins with: "It is our purpose to ..." A second elaboration comes in the form of added context such as: "... offering affordable Montessori education to families of ..." A third elaboration might be citing some of the general things the school might do in the near term in order to carry out its mission, e.g., achieve higher levels of social integration, or increased enrollment and improved facilities, or increased community service activities, etc.

In addition to being the heart of the mission statement, the action concept, and all the activities that went into developing it, have moved the school to the threshold of the kind of strategic thinking that leads to the identification of goals of strategic merit. This is because the committee has already examined the energies of the school that contribute directly to the concept; the energies in the school that are presently unavailable to the concept, and the energies that actually work against the concept. A strategic goal has strategic merit in the degree to which its attainment reduces institutional entropy and aligns all institutional energies with the concept.

As the Committee on Conceptualization and Evaluation concludes its work, the school is already well into strategic planning. Beginning a strategic plan does not even entail stepping across a new curb. The school simply keeps moving along the same walkway.

6.10. SOME QUESTIONS/CONCERNS

Question:

What is the difference between "environmental press" and "environmental action?"

Answer:

They are different aspects of the same thing. The "press" comes from high-energy values that are found to be in the school environment. The action is the conversion and extension of those high-energy values into school activities. It is a lot like two sides of a coin. On one side is an expression of values (*e pluribus unum* and the monetary worth). The other side is a reflection of action, usually a stamped on profile of an individual who is associated with the great actions that make the value of the coin stand up. It is value on one side, action on the other; but one coin.

Question:

How does the action concept enable judgment about the lack of entropy existing in any part or any synergy of parts?

Answer:

Consider the First Rule of Entropy in Education, namely, *a resource once in place looks to its own increase*. Resources are always first acquired to support the action concept of the school. This justifies the acquisition. But once there, the resources turn some of their energies to their own benefit. By bringing the action concept to bear, the evaluators can estimate the proportion of those energies that are going astray (so to speak). A resource that is becoming entropic can be studied to determine how that tendency can be reversed, so it will become decreasingly entropic and increasingly syntropic.

Question:

If that is the "First" Rule of Entropy, there must be others?

Answer:

In all there are four. The Second Rule is: *Entropy once established in one part of the school spreads to others*. The Third Rule is: *Resources acquired (or funds raised) for purposes unrelated to the action concept increase entropy*. The Fourth Rule is: *Schools are created in syntropy and die in entropy*.

Question:

How serious is entropy?

Answer:

According to the Fourth Rule of Entropy as cited above, if uncontrolled it becomes a terminal illness. The best regular control is a tight, no nonsense budgeting process. That, in combination with a periodic self-study and evaluation of the kind envisioned in this *Guide*, usually controls entropy at safe levels.

Question:

If our self-study focuses on the flow of energy into the action concept, will it neglect traditional standards such as teacher preparation, teacher/student ratios, student health and safety, sound fiscal controls, functional facilities, etc.?

Answer:

No. These matters are no less a concern than ever. Firstly, they are the sources of institutional energy and if they are not strong there is not enough energy available to support the school's action no matter how well it synergizes and flows. Secondly, these standards are written into the standards for accreditation (see Appendix). A school cannot be accredited on the flow of energy alone. In the past we have concentrated on these matters to the exclusion of understanding how well they

contributed to the school's action, the result has been accreditation of some highly entropic institutions. This *Guide* purports to reduce that possibility.

Question:

Why are we beginning to think of a school as energy?

Answer:

At the most fundamental level we know that is what anything is. What matters in education is the amount and kind of energy the school delivers into the experience of the student and how much energy the student delivers in response. Modern education occurs within a highly energized student world. This leads to judgments that astonish the Mid-Twentieth Century mind. For example, the delivery of energy into the experience of the students depends not so much on the size of the school and abundance of the resources as it does on their efficiency. This means it depends on how well the flow of institutional energy follows the design of the action.

Question:

Are we moving out on a limb by thinking about a school as a center (or field) of energy?

Answer:

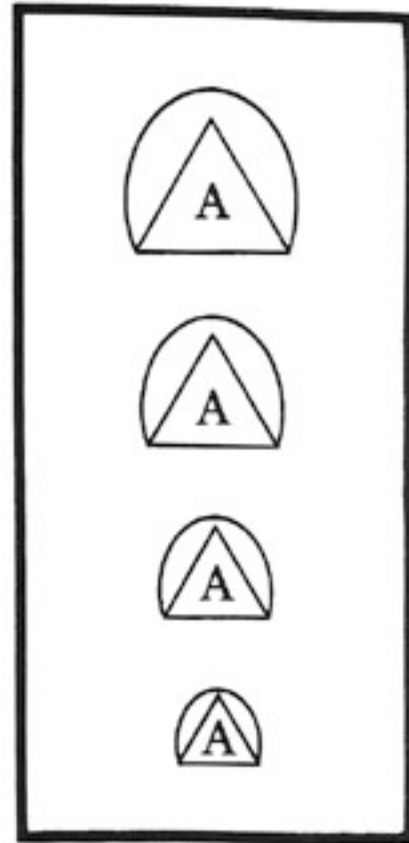
Far from it. Since early in the Twentieth Century when *energy* was accepted as the *ne plus ultra* of the universe, one academic discipline after another has been revising assumptions, methods, and thinking styles in order to relate successfully to the *quantum status of* whatever it is that they study. The physical and life sciences are becoming increasingly unified and the social sciences are now impacted. As usual, education is among the last to become involved. With the demand that education come up with schools appropriate for the Twenty-First Century, we cannot wait longer to get into this (see Notes on *Synergy*).

Question:

What evidence is there that educators are moving toward quantum thinking styles?

Answer:

It is in the words now heard with increasing frequency. Years ago we called school buildings "plants." Now we hear the term "environments." Young teachers express thoughts about the "ecology" of their classrooms. They are teaching about "holistic health." The "microcosm" of our national problems is perceived in the "microcosm" of classroom experience. Not long ago thoughts about education were linear and mechanical. Accreditation was a ten-year-run-and-repair cycle. Not long ago we spoke of "lines of communication" and being "informed up and down." Today's thought is increasingly ecological, accreditation is becoming "developmental," school management is "paradigmatic." Communication is now a "force;" and it seeks "involvement up and down." Words are clues to how we are styling our thoughts.



*As action grows,
knowledge increases.*

SECTION SEVEN

STRATEGIC PLANNING

7.1. MEMBERS OF THE COMMITTEE

7.2. THE ART OF STRATEGY

Ordinary events can lead to extraordinary consequences. According to legend, a cholera stricken monkey bit Alexander (the Great) of Macedon who was then at the peak of his powers. His subsequent death by that affliction (it is claimed) changed the fate of Europe and Asia. A separate legend holds that while restrained in enchantments of Cleopatra, Caesar delayed his projects, Rome was destabilized, and republican institutions were lost for more than a millennium. If it is *even possible* for things so insignificant as a monkey's bite or the shape of a pretty girl's nose to change the course of the Western history, it is easy to understand human fascination with the *art of strategy* (Carr 1961), (Richardson 1964).

The word *strategy* has had a long and interesting association with human competition. If resources are equal, *the superior strategist wins*. Even if not equal, the inferior force can defeat the superior force by a *superior strategy*. A strategy is often a diversion, a surprise, or some kind of trick. Just as often it is exploiting an opponent's weakness. Most of the time it is making the right move, with the right resources, at exactly the right time to achieve maximum effect. At other times it is putting into place the relatively small things that make all of the larger things work to maximum effect. Effective strategies reduce entropy and increase syntropy (see Section Six).

Interestingly, a strategic action does not necessarily confront the problem it purports to resolve. For example, strategic bombers do not drop bombs upon the giant military machines that menace friendly forces. Knowing these machines require fuel, repair, and replacement strategic bombers reign devastation upon sources, fuel, and factories that manufacture parts: Then, time goes along, the objective is accomplished. The great machines of war become useless without being confronted. Strategic action of this nature is always more effective and less costly than direct confrontation.

Strategy is the art of getting more for less, of controlling without excessive investment or risk (as in, "her strategy always seeming to agree without quite agreeing"). There is nothing in the logic of the term *strategy* that requires a stratagem be honorable. A student who performs poorly on exams may compensate by a strategy of asking questions, feigning interest, and walking the professor's dog. Strategy is the art of prudent usage. The fewer the resources and the larger the problem, the greater the strategy must be. This is why strategy is an art.

7.3. THE ART OF STRATEGIC PLANNING

Operational planning is a *technique* of converting known resources to a set of predefined actions over a near term. *Long-range planning* is a *technique* of discovering the resources needed to sustain desirable action over a long term. There is also a *technique* involved in strategic planning, but strategic planning is more than a technique. As was just said, it is an art. It is an art because it entails the *art of strategy*.

In a later discussion of strategic goals (7.6), it will be pointed out that strategic goals must have strategic merit. A goal has strategic merit if more energy comes from its accomplishment than goes into its accomplishment; or, in other words, a goal has strategic merit if there is more output than input.

It is the art of "strategic goaling" that sets strategic planning apart from other planning styles that are primarily techniques. Nevertheless, there are techniques in strategic planning that require study and practice. As in all of the arts if the techniques of strategic planning are not well rendered, the art of strategic planning cannot emerge. Fortunately, those who have used this *Guide* for purposes of self-study will find most of the techniques needed for strategic planning have already been applied during the self-study.

The first of these techniques is public involvement and consensus building. Strategic planning for social institution, whenever it is done, is a public process. Strategic planners stress the need for “ownership” or “investment” by all who are affected by the plan. For this reason, guides for strategic planning *always* stress wide involvement and the importance of consensus. Effective strategic planning brings in all of the “stake holders,” and that is certainly true of the self-study just completed by use of this *Guide*. So it is appropriate to consider the self-study and all who were involved as already involved in the strategic planning now underway. At this point in the protocol, it is appropriate to look upon the entire self-study process as strategic planning.

Other techniques we must now add include *environmental scanning* and *mission stating*. Again, as indicated in the next sub-sections (7.4. and 7.5.), even these activities have already begun in Phases I and II of the Self-Study.

7.4. ENVIRONMENTAL SCANNING

Environmental scanning is a graceful term that covers something good strategic planners have done for centuries. The Stoic philosophers of pagan antiquity separated events into two categories: *ours* and *not ours*. The things they called “ours” were things under their control. Stoic wisdom taught there was a line through the center of human experience which separated the things that humankind can control and change from the things it cannot; hence, *ours and not ours*. The Stoics tended to be resigned about the “not-ours” in their lives, and they accepted them, as we say in modern language, “stoically.”

Instead of the “ours” and “not-ours” dichotomy used by the Stoics, modern strategic planners use the terms “internal” and “external.” Things “ours” are *internal*; things “not ours” are *external*. External matters include such things as taxes, population shifts, law enforcement, broad public sentiments, etc. These are things outside of a school, things over which the school has little or no control -- in a word they are the “givens.” Planners need to know what they are and how they will impact upon the school.

Many of these “not-ours” phenomena are in the *primary nature of the school*. Some schools have more control over these things than do others. Typically, a school can change them only very slowly. Changes in the primary characteristics of the school are usually for long-range planners and not for strategic planners. The latter tend to look upon them as the “not-ours” that impact upon the school, and are factors to be considered in strategic planning, but not changed by strategic planning.

The *educational nature of the school* and *the nature of its outcomes* are internal; they are “ours.” We can control and change them. Now because we can change something does not mean we must. Strategy calls for some of these to go on as they are and others to change in accordance with the mission of the school and the strategic goals selected for the strategic plan.

So the first technique the Committee must apply is *the environmental scan*. It should first identify the actions going on that affect the future of the school over which the school has *little or no control*. In effect, these are the actions that are “not ours,” but they must be taken into consideration as the plan develops. The Committee should then list actions that the school is able to take that are “ours.” The environmental scan, therefore, results in two lists. One names the actions going on that affect the future of the school over which the school has little or no control. The other list identifies actions that strongly impact on the future, which the school does control. This scan of the environment gives the committee a sense of the problems and potentials that can shape the future.

7.5. THE MISSION STATEMENT

The essence of the mission statement is the action concept of the school that is described in Section Six of this *Guide* and has already been stated by the Phase II Committee on Conceptualization and Evaluation. Schools that have used this *Guide* in self-study will have the concept statement. Others will need to develop it. (Again, this is why the concept-based self-study explained in this *Guide* is considered part of the *strategic planning process*.)

What needs to be added to the concept statement for it to become a mission statement? Perhaps nothing. But many schools may regard the concept statement as too lean and may feel the need for a two or three sentence elaboration. Such elaborations are usually *added to the action concept by giving fuller intentionality or expression of the purpose of the institution*. The concept statement seldom goes far beyond explaining the action of the school. The mission statement can stress what the school *is becoming or intends to be*. For that reason, the committee responsible for the strategic plan should (as did the Committee on Conceptualization and Evaluation) present its proposed mission statement to the school community and attempt to achieve a general consensus.

The mission statement expresses *what the strategy is for*. When it comes to selecting stratagems and weighing their merits, the mission statement is the *sovereign criterion*. For example, we certainly wouldn't need a good strategy for increasing the number of students in full time residence if the mission of the school is to provide services for day students *only*. A strategy is good and effective, if and only if, it advances the school in its mission.

So the mission comes first; then the strategy. Among other things, the mission statement focuses the community, subdues personal agendas, and converts political energies to practical and constructive uses. It also emphasizes the need for a good strategy. The first typical reaction to an ambitious mission statement often is "it will cost too much" or "where will we get the kind of money we need for that." As indicated above (7.2.), *the fewer the resources and the larger the problem the better the strategy must be*.

Now, where is the strategy expressed? It is expressed in the strategic goals.

7.6. THE NUMBER OF STRATEGIC GOALS

In a strategic plan the goals are few in number. Some plans have only one; very few plans have more than three. So the faculty can begin its selection activity with the thought that it is seeking from one to three goals that have high strategic merit. That means they will be actions that align the energies of the school with its mission.

Strategic actions must have school-wide impact. The strategic merit of a goal corresponds to the advances in the school's mission that result from its attainment. Actions that favorably affect the school's mission are most worthy of consideration. Obviously they will always have school-wide impact and will not deal with narrow or isolated concerns.

As indicated above, "strategic goaling" is an art. It takes imagination to envision the one, two, or three things a school can do that will do the very most to advance its mission. Again, the action can be indirect, and it should release more energy than goes into it. Strategic merit develops when a *limited action* results in an *enormous gain*. As stated in Section Six if one dollar's worth of new energy can release ten dollars worth of entropic (or pent-up) energy, it is a good strategy to find that dollar and spend it. On the other hand, we don't always reduce entropy by adding dollars. Strategic planners must be aware that even new dollars can be made entropic by the entropy they are assigned to reduce. *Entropy*, Section 6.10.) (See the *Rules of Educational*

The number of goals must be limited because strategic goals that have high strategic merit deserve all of the energies and resources the schools can put into them. Energies and resources are finite. When the latter are diffused across a great many goals, the prospect of failure increases. That is why the goals must be of limited number. Also, when there are an excessive number of goals, schools tend to achieve progress on minor matters, but the important strategic goals are unattained. There is little real movement. Therefore, it is well to limit the number of goals to three or fewer.

7.7. THE SYNTAX OF GOAL STATEMENTS

Syntax, as the term is used here, refers to the grammatical arrangement of goal sentences. In effect, the syntax is a suggested organization for the elements within a goal sentence. Both these elements and the order of their appearance are defined as the syntax.

By using this syntax, the goal statement will include four elements. They are: (7.7.1. The Action), (7.7.2. The Object of the Action), (7.7.3. The Limits of the Action), and (7.7.4. The Time of the Action).

7.7.1. The Action

This tells the kind of activity that is envisioned. It almost always is stated in the infinitive, i.e., to increase, to decrease, to limit, to add or to improve.

7.7.2. The Object of the Action

The object of the action is really the object of the goal. It is "the what" of the goal. It may be anything from school attendance to measured reading ability. It could be arithmetic work sheets or library utilization.

When the action is joined with the object of the action the statement is half finished. As in this example:

<u>(To increase)</u>	<u>(the incidences of face-to-face interaction with parents.)</u>
<i>Action</i>	<i>Object of Action</i>

7.7.3. The Limits of the Action

Where possible, limits are expressed in the prepositional "from-to" format. Limits state what the status is now and what the status will be when the goal is attained. This is very important because it also establishes the goal's attainability. Unless limits are clearly expressed no one can be certain when the goal has been attained. For example, a school may state the action and the object as "to foster better relations with parents." This is always a good idea, but it gives no indication of what changes can be observed and confirmed. Now, if the object of the action changes from (the vague) "better relations" to a higher number of face-to-face interactions, the goal becomes:

<u>(To increase)</u>	<u>(the incidences of face-to-face interactions with parents)</u>
<i>Action</i>	<i>Object of Action</i>
 <u>(from 90 per month to 180 per month.)</u>	
<i>Limits of Action</i>	

This goal now suggests a program and furnishes a foundation for monitoring progress. The skill of the goal writer in this instance is to convert a desired object, i.e., "improved relations" into qualified limits, namely, the number of face-to-face interactions. Quantification makes attainment verifiable.

What if quantification is impossible? Limits can be stated qualitatively. For example, it is possible to say "from inadequate to adequate." This can be satisfactory if the planners succeed in developing a standard meaning for the terms "inadequate to adequate." For example, "adequate" parent relations can be parent relations activity which provides satisfactory answers to a set of questions posed by teachers and parents. "Inadequate," of course, would be one that fails to provide satisfactory answers.

Other "grading words" such as good, fair, satisfactory, or poor pose similar problems for the planner. All must commonly understand what is meant by "good," etc.

Where limits are clear, attainability is clear, and when attainability is clear, accountability can be established. Even more importantly, there is a basis for satisfaction. When all recognize that a group goal has been attained, morale improves.

7.7.4. Time of Action

The last of the four elements of the syntax is the time of action. Some strategic goals require only months, others require four or five years. In deciding about time, planners must interpolate between the urgency of the goal and all that is required to attain it. In wartime the term "crash program" is commonly heard. Huge buildings are planned and erected in just a few weeks. But settlement cracks often start up the walls before the roofs are trimmed out. For some things there are no short cuts. A goal should be given the time it needs, and "crash programs" reserved for the emergency situations that hopefully never arise.

Developmental activities require continuity of effort over a number of years. It is not uncommon for a school to change leadership once, twice, or even three times before a goal is attained. It is gratifying to visit such a school to find that progress on a strategic goal has not been disrupted by leadership changes. One important reason for this is that the time of the action is stated and usually known by the full community and accepted by the new principal, headmaster, or superintendent.

Nature does not grow an oak in a fortnight. Accredited schools are now growing in quality, and do their work with the consciousness of the time qualitative growth requires.

So in final form with the time of action included the goal might read:

<u>(To increase)</u>	<u>(the incidences of face-to-face interaction with parents)</u>
<i>Action</i>	<i>Object of Action</i>
<u>(from 90 to 180 per month)</u>	<u>(by June 199 .)</u>
<i>Limit of Action</i>	<i>Time of Action</i>

7.8. THE WORDS

There are few instances in language when words and deeds are more closely linked than in the language of goals. Words begin as thoughts, but as thoughts become words they go beyond thoughts. This is because words themselves exert a performative force. As words play upon emotions and imaginations of those who hear them they take on a life of their own exerting nuances often not intended by those who give them utterance.

Lewis Carroll's Humpty Dumpty said, "when I use a word ... it means what I choose it to mean - neither more nor less." In this Carroll (Dodgson) expressed the logician's wish. But as a poet he was also aware of the emotional and intellectual adventures that words and phrases can inspire. In an early poem he offered counsel that is certainly heeded by modern advertisers:

“Don't state the matter plainly,
But put it in a hint...”

An ill chosen word can destroy a goal, and a well chosen word can make it fly. In 1962, President John Kennedy phrased one that soared.

(To place)
Action

(a man)
Object

(on the moon)
Limits

(by 1970.)
Time

This one has the syntax and the elements. But it also has the words. The nation heard words and said: “Yes.” But yes to what? Perhaps it was the "hint" that the time had come for humankind to do this, that we are the kind of people who can do this, and if we succeed, both now and in centuries to come, all will look upon us in a special way. Being the sort of man he was, it is sad John Kennedy did not live to see it.

7.8.1. Eight Sample Goals

- (To increase) (number of face-to-face contacts between teachers and parents)
Action *Object of Action*

(from 300 to 500 per month) (by June 199 .)
Limits of Action *Time of Action*
- (To increase) (the median reading scores for grade three)
Action *Object of Action*

(from 3.2. to 3.9.) (by June 199 .)
Limits of Action *Time of Action*
- (To change) (teaching methods in primary grades)
Action *Object of Action*

(from text-centered teaching to multi-sensor) (by March 199 .)
Limits of Action *Time of Action*

school is doing. For example, it is probably not wise to schedule a major event of the action plan during one of the weeks that report cards are sent to parents. Events won't come off well if the planners consistently overload the capabilities of the faculty.

7.9.2. Sequencing Events

The events that appear early in the sequence are usually those which provide needed information. Sometimes a small collection of books, pamphlets, articles, and abstracts must be collected and located at a place convenient for reading and discussion. If the goal has to do with improved financing an early step is projecting income and expenses. If teaching styles are to be changed, if new technology is to be introduced, or if new teaching materials are to be selected then workshop programs are usually early in the sequence.

If the goal is to increase enrollment, improve parent/community relations, diversify finances, or develop outreach programs for particular community groups it may be important to begin with a consultant. In fact, it may be wise to suspend the identification and sequencing of later events until a consultant's opinions are heard. It is never a good idea to have the plan fully locked in place before dealing with an outside authority whose advice is needed for the school to attain its goal.

One good way to proceed is by first limiting the events deemed critical to the attainment of the goal. When satisfied that all critical goals are on the critical list (or critical path), the planners list the collateral events. The collateral events are the sub-events needed for each critical event to occur satisfactorily. For example, if a critical event is for the faculty to become fully informed on something to be added to the school, say, a new provision of one kind or another; the collateral events would include requiring reading materials, holding workshops, visiting other places that already have it, presenting information to others affected, etc.

Here is an example of a strategic goal with critical and collateral events.

<u>(To establish)</u>	<u>(two centers for independent learning)</u>
<i>Action</i>	<i>Object of Action</i>
<u>(in each classroom)</u>	<u>(by June 199 .)</u>
<i>Time of Action</i>	<i>Limits of Action</i>

7.9.3. Critical Events

- A. Faculty visits to schools that are making effective use of learning centers.
- B. Program revisions, which demonstrate relationship of learning centers to continuing curricula.
- C. Design the learning centers.
- D. Physical changes in the classroom.
- E. Parent information programs on educational advantages.

- F. Ordering equipment and materials for first center.
- G. Teacher workshops on uses and techniques.
- H. First center in each classroom becomes operational.
- I. Order materials and equipment for second center.

7.9.4. Collateral Events

After the critical events are listed, the planners then list the events that are related to each one of the critical events.

Here are some examples:

- A. Faculty becomes fully informed on uses and values of independent learning centers.
Collateral events....
 - A.1. Visits to schools with independent learning centers.
 - A.2. Workshops arranged.
 - A.3. Demonstration model in one classroom.
 - A.4. etc.
- B. Program revisions that establish relationship of learning center to ongoing curricula.
 - B.1. Educational purpose defined.
 - B.2. Reading activities assigned to centers.
 - B.3. Math activities assigned to centers.
 - B.4. Social Studies activities assigned to centers.
 - B.5. Center management model developed.
- C. Design Learning Centers
 - C.1. Establish spaces and location.
 - C.2. List equipment.
 - C.3. List materials.
 - C.4. Establish child-oriented decor.

- D. Physical Changes
 - D.1. Rewiring of classroom.
 - D.2. Carpentry (patch and repair).
 - D.3. Painting.
 - D.4. Installation and testing of equipment.
- E. Parent Information Program
 - E.1. Development of brochure.
 - E.2. Parent meeting.
 - E.3. Parent visitation of classes.
- F. Ordering of Equipment and Materials for First Center
 - F.1. List equipment and specifications.
 - F.2. Obtain bids.
 - F.3. Make purchase.
 - F.4. Receive.
- G. First Center in Each Classroom Becomes Operational
(No collateral events)
- H. Order Equipment for Second Center in Each Classroom
 - H.1. List equipment.
 - H.2. Obtain bids.
 - H.3. Receive.
- I. Second Operational Center
(No collateral events)

7.9.5. Time/Event Diagram

Many schools use computers to develop a time/event diagram. Others find it helpful to use a *PERT chart*, which identifies the critical events and all related events. The *PERT chart* indicates interrelationships among events. (PERT is an acronym for Planning, Evaluation, and Review Techniques.)

Schools are encouraged to use any diagrammatic format that will enable the participants to have a vision of the time, sequence, and relationship of the various events in the plan.

TIME/EVENT DIAGRAM

Goal: To establish two learning centers in each intermediate grade classroom by June

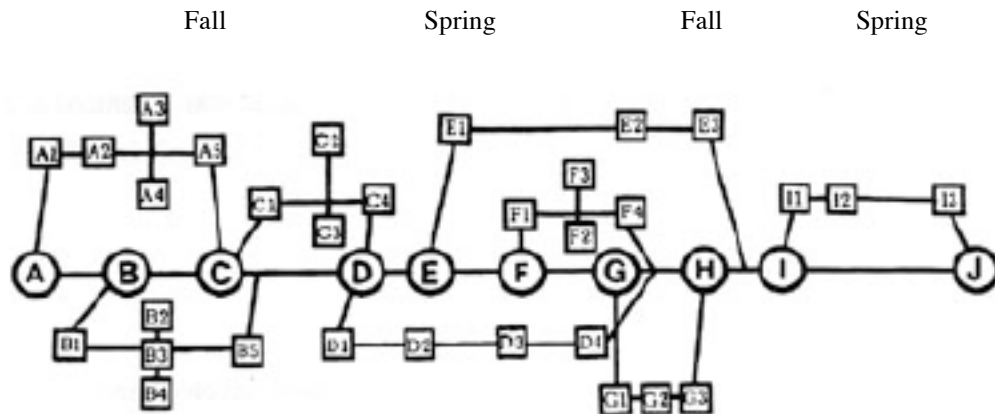


Figure 12. Time/Event Diagram

7.9.6. Identification of Resources

There are four kinds of resources available for each strategic goal. They are time, personnel, facilities, and funds. Planners must not identify more resources than needed. It is very important to identify the sources of additional funding necessary for goal implementation.

7.9.7. A Method of Monitoring Progress

The administration of the school and Steering Committee must be continuously informed on how the strategy is working. Within good planning there is flexibility that must be exercised at the right time. The chart (or time-event diagram) offers a good view of both what is occurring and should be occurring, and it reveals where flexibility is possible.

Any soundly conceived strategy includes the prospect of withdrawal or regrouping if either becomes necessary. At times, "game plans" work to perfection; but frequently it is necessary to review options, revise goals and develop alternatives. "Let's return to the drawing board" is a frequent expression in all walks of life. The worst thing that can happen is deteriorating effort that affords no alternative but further deterioration.

7.10. THE PLANNING REPORT (A Suggested Format)

This Section presents a suggested format for the *Strategic Planning Report*. It is laid out so that the pages provided here could become the pages of the report, if the committee so chooses. All the committee needs to do is supply its answers in the spaces provided. This will assure logical presentation and a complete report. Schools using this *Guide* for planning are permitted to duplicate the pages of Section 7.10.

7.10.1. Description of the Planning Activity

- 7.10.1.1.** Describe how the planning process was organized and managed.
- 7.10.1.2.** Describe the group(s) that were involved and indicate what the group(s) did.
- 7.10.1.3.** Describe the technique/procedures used in identifying the school-wide strategic goals.
- 7.10.1.4.** Identify the individuals or agencies responsible for the implementation of the plan.
- 7.10.1.5.** Describe the strategic merits of the plan (i.e., in what ways will this plan result in school-wide development that is believed desirable).
- 7.10.1.6.** Indicate what official or agency approved the plan in behalf of the school.

7.10.2. Strategic Goals

If possible, phrase each goal in the syntax suggested by the brackets below the lines on which the goal statements are recorded.

Goal #1

Action

Object of Action

Limits of Action

Time of Action

Goal #2

Action

Object of Action

Limits of Action

Time of Action-

Goal #3

Action

Object of Action

Limits of Action

Time of Action-

7.10.2.1. Events (Duplicate for Each Goal)

This section of the planning report must be completed for each one of the school-wide goals listed. It- only one school-wide goal is listed then only one set of critical and collateral events is presented. If two goals are listed then two sets. If three goals are listed then three sets.

In other words, if only one goal is listed the following format is used once. If two goals, a copy must be made and the format used twice. If three goals, the format is used three times and all are included in the planning report.

Goal Statement:

List the major (or critical) events that must occur if the goal is to be attained.

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____
- I. _____
- J. _____

List any collateral events that are associated with the major events (above).

- | | | | |
|-----------|---|-----------|---|
| A. | 1 | B. | 1 |
| | 2 | | 2 |
| | 3 | | 3 |
| | 4 | | 4 |
| | 5 | | 5 |
| C. | 1 | D. | 1 |
| | 2 | | 2 |
| | 3 | | 3 |
| | 4 | | 4 |
| | 5 | | 5 |
| E. | 1 | F. | 1 |
| | 2 | | 2 |
| | 3 | | 3 |
| | 4 | | 4 |
| | 5 | | 5 |

G. 1
 2
 3
 4
 5

H. 1
 2
 3
 4
 5

I. 1
 2
 3
 4
 5

J. 1
 2
 3
 4
 5

7.10.3. Time/Event Diagram (Duplicate for Each Goal)

Developing a PERT chart is optional. However there are a number of values in this activity. Developing such a chart enables the staff to visualize events in sequence and relationships. The school is encouraged to develop the visual interpretation that will provide the broadest meaning for implementation.

7.10.4. Resources (Duplicate for Each Goal)

As in the two foregoing sections, a separate section on Resources must be completed for each one of the goals listed. If one goal, then only one section; if two goals, then two sections are needed, etc.

7.10.4.1. Describe the resources (staff, facilities, equipment, materials, etc.) available for the attainment of the goal.

7.10.4.2. Describe the resources (staff, facilities, equipment, materials etc.) that can be redeployed from other programs and services to attain this goal.

7.10.4.3. Describe the resources (staff, facilities, equipment, materials, etc.) that must be acquired or developed in order to attain the goal.

7.10.5. Monitoring (Duplicate for Each Goal)

7.10.5.1. Describe how the progress toward this strategic goal is monitored and indicate who is responsible.

7.10.5.2. Indicate the criteria the school will use to evaluate the attainment of the goal.

NOTES

Carr, E.H.,

What is History? (London: The Trevelyan Lectures 1961) See especially *Lecture IV: Causation in History*, p 81-102.

The various theories of what drives history include transcending laws or ideas, doctrines and universals, social tendencies and psychological dispositions. Other theories attribute themes of human progress, and still others view history as shaped by great individuals who render great deeds.

Finally, there is a not widely admired view that history is simply the vast aggregate of human events each one exerting its own unique causal influences on the next. In effect, "history is nothing more than one damn thing after another." The "monkey's bite" and "Cleopatra's nose" hypotheses belong to this view. The latter acquired fame from Pascal's observation, "had Cleopatra's nose been shorter the whole aspect of the world would have been changed." (*Pensees* ii, 162)

Clearly both Alexander's demise and Caesar's dalliance proved historically significant. They could have been random events or the manipulations of a "higher mind" But in either case, they come to us as small things with huge consequences.

Fuller, R. Buckminster,

Synergetics: Explorations in the Geometry of Thinking (New York: The Macmillan Publishing Company 1975)

Citing the dangers of narrowness and over specialization, Fuller introduces a science of how things come together to form a whole. Through a systematic geometry he investigates integrated behaviors, analyzes how aggregation occurs, and demonstrates how wholeness can be systematically studied. Synergetics suggests a model for school evaluation that would be a sharp departure from analysis of parts in isolation. (See Notes on *Synergy*.)

The Critical Path (New York: St. Martin's Press 1981)

Fuller chronicles a dichotomous advance of human knowledge and power and cites the utter danger of continued use of both for the narrow aims of individuals, sectional groups, and sub-groups. Rampant individualism and nationalism now imperil "spaceship earth." It is not just the geo-social/political opinions of this observer; it is his style of thought and methods of generalization, both well grounded in quantum science, that bear importantly on how we must now think about schools and education.

Heath, P.L.,

"Concept," *The Encyclopedia of Philosophy* (London: The Macmillan Co. 1972)

Heath cites modern phenomenological objections to entity theories of concept formation. He says of subsistent (entity) concepts, "there are none to praise and few to love them." He refers to Locke's formulation as "infamous." He speaks more favorably of dispositional theories of concept formation. The *action concept* described herein is a kind of dispositional concept. Locke's formation is used herein primarily as a metaphor of selection, organization, and description. Cf., Russell 1945 and Notes on *Triangulation*.

NOTES Continued

James, William,

Pragmatism: A New Name for Some Old Ways of Thinking. (New York: Longman's Green and Co. 1907)

James, and nearly everyone else, thought he was extending from Peirce's definition. Later, when Peirce clarified his position, the world had two versions of pragmatism. Of the two, the one of James is more applicable to humane enterprise. The one of Peirce is more relevant to scientific and logical investigation.

Rambusch, Nancy M.,

Learning How to Learn: An American Approach to Montessori (Baltimore: Helicon Press 1962)

Montessori's work is presented to American parents by an American much as Dorothy Canfield Fisher's earlier work, *A Montessori Mother* (1912) with arguments for its new found relevance. Montessori's ideas are situated in the context of authoritative child rearing.

_____ ,

Montessori Teacher Training: The Calypso Paradigm (*The Constructive Triangle* Vol. V., No.3 1978)

A critique of the misplaced emphasis in Montessori teacher training on the ritual manipulation of Montessori's didactic apparatus is offered. Observation, and the willingness to be advised by it the author argues, is at the heart of the "nation."

_____ ,

"Maria Montessori" *Women in Psychology* (Westport, CT: Greenwood Press 1989)

A biographical sketch which situates Montessori as a charter member of an international band of female pioneers in psychology. Emphasis is placed on Montessori's "impressionistic" approach to developmental concerns.

_____ ,

"Maria Montessori's Method: Eighty years later: The *Channel*" (Mid-Hudson School Study Council, Fall 1991)

A study of the reception of Montessori's educational theories in America and their subsequent situation in the culture. An emphasis is placed on Montessori as a developmental interactionist.

_____ ,

"Montessori in America: A History" Loeffler, Margaret H., *Montessori in Contemporary American Culture* (Portsmouth, NH: Heinemann 1992)

Richardson, Alan,

History Sacred and Profane (Philadelphia: The Westminster Press 1964) This is one of a number of excellent studies in historiography which analyzes the historicity of events. These reflections are of a kind helpful in assessing strategic significance of prospective actions.

NOTES Continued

Rinehart, Alice Duffy ,

Mortals in the Immortal Profession: An Oral History of Teaching (New York: Irvington Publishers, Inc. 1983)

They were proud of their "pin-drop" environments, of their strong community connections, of their resourcefulness, of their independence, of their conservation, and of their ability to accomplish things which in later times seemed to require vastly greater resources.

Russell, Bertrand,

A History of Western Philosophy (New York: Simon and Schuster 1945) p 604-606.

Russell summarizes the problems in Locke's formulation, but points out its practical values which continue to be substantial despite logical defect. "Not only Locke's valid opinions, but even his errors are useful in philosophy." Russell maintains there is "justification for common sense in philosophy." That is one reason the formulation is used herein. It is a common sense way to select and organize the elements of an entity.

_____,

Wisdom of the West (London: Rathbone Books Limited 1959)

Russell's studies in the history of philosophy demonstrate an uncommonly clear path from medieval nominalism (such as that of Occam), to the naturalism of the enlightenment to the naturalistic educators, e.g., Locke, Rosseau, Froebel, etc., and also to the American and English pragmatists. It provides good reading for American educators interested in the various problems of concept formation and use of concepts in educational practice.

Stoops, John A.,

Philosophy and Education in Western Civilizations: (Danville, Ill., The Interstate Press 1972) p 270-71

Charles S. Peirce (1839-1914), founder of *pragmatism* depicted the absolute as having three attributes: (1) the universe of feeling, (2) the universe of thought, and (3) the universe of action. His most widely known philosophical work was in the universe of action. In this he proposed our conception of things he fashioned from practical effects. His pragmatic method required we consider "what effects, which might have practical bearing, we conceive the object of our conception to have." Then said he, "our conception of these effects is the whole of the object." As applied here, the action (or pragmatic) concept of a school is our concept of the practical effects we intend that object of our conception (which is the school) to have. To state it more simply, at the risk of indifference to Peirce's rigor, an action concept of a school can be a conception of the practical effects of a school. C.f., *The Action Concept*. (See also, *Collected Papers of Charles Sanders Peirce*, Vol. V, para. 414.)

_____,

The Oughts of an Accreditation Protocol (Philadelphia: The Middle States Association 1989) Cf., *Judgment by the Profession* (1983) *How Teachers Evaluate the School* (1985)

NOTES Continued

These publications stress the supportive nature of our on-site peer review as conducted throughout the Twentieth Century by the six American regional accrediting associations. On balance, accreditors of long experience have found the values of a supportive critique to far outweigh those of an adversarial critique.

Adversarial peer reviews fail to foster the developmental continuity which leads to institutional strength. Adversarialism in peer review is far more suitable to reviews conducted by regulatory agencies where the aim is to uncover "wrong-doing" than to modern accreditors who are "public witnesses" for institutions that are developing and maintaining their quality.

The Action Concept

Justification for using an *action concept* as criterion derives only in part from the various doctrines of American pragmatism which developed in the last decade of the Nineteenth Century and the first one of the Twentieth by (primarily) Charles S. Peirce and William James. Peirce (a realist) saw pragmatism as a method for scientifically verifiable deductions and James (a nominalist) as a means of discovering utility. Whether one or the other, the returns on application of the concept reflected on the meaning (Peirce) or truth (James) of the concept and give it what Dewey later called "warranted assertability."

The fact these philosophers are referenced in this *Guide* does not mean either of them would think the *use* of a concept made here is consistent with pragmatism. What this *Guide* owes to pragmatism is the tendency to take an action concept of the phenomenon to the phenomenon for the purpose of making judgments *about* the phenomenon. Unlike claims made for the pragmatic method, there is no claim made here that evaluative judgments add to the meaning or truth of the concept.

So by what method does the concept acquire its authority? The concept finds its sanction in philosophical existentialism wherein such a *concept can be warranted by the belief of the community*- Truth is, therefore, "endowed" upon the concept by the "intellectual capital" of the school's community. That is all the justification the concept has and all that it needs.

This is why the concept must be attained by a community process; and it is why *the community process is the fundamental reality of the Guide*. There is no way to by-pass the convergence of the "community mind" in establishing a concept with the authority it needs to serve as criterion for evaluation.

Also, from existentialist theory is the position of this *Guide* that the concept be (in so far as possible) of the "school" that is active within the life-world of the student. This fits with the definition given elsewhere herein that a "school" is a particular kind of energy (or action) delivered into the consciousness of the student which attracts and engages energies (or actions) that are already there.

NOTES Continued

Entropy,

The concept of entropy has been progressively broadened in three stages. It originated during Mid-Nineteenth Century investigations of the transformation of heat into useful mechanical work within closed mechanical systems. The term was derived from the Greek word for "transformation." As such, *entropy* in this *first stage* was regarded as a measure of the disorganization within a system which reduced the heat available for useful work. As a result of these early studies, *entropy* became open to mathematical formulation and application in the science of mechanical design.

The *second stage* of broadening this concept can be associated with new discoveries in molecular behavior, quantum theory, and speculations about the destiny of the universe. The latter included theories that presented the inexorable growth of entropy as a law of the universe as a whole which led to conclusions the universe is headed toward "thermal death" when the universe will be totally entropic with all its energy converted to stable mass, with all temperatures the same, and all life processes deceased. In more recent times this theory has encountered serious objections in the light of convincing evidence that the universe is still expanding, that the rate of expansion is increasing, and that there is no sign of the closed equilibrium needed to make the theory of thermal death hold up. However, there are more recent theories that all matter is the entropic residue of the primordial energy of an expanding universe.

The *third and even wider stage* of broadening the concept of entropy owes much to the "sorting demon" (Maxwell 1871). It was imagined what would happen if a closed system was visited by a "sorting demon" able to influence the faster molecules in one direction to one point and the slower ones in another direction to another point. The result would be, without work, a raising of the temperature at one point and lowering of the temperature at the other -- an apparent contradiction of the second law of thermodynamics.

It was later pointed out (Szilard 1929) that the second law would not be violated if the "sorting demon," is regarded an ongoing integral part of the system. In this concept of *entropy* the demon, in addition to being integral to the system, (1) has information, (2) can pass it on in such a way as to effect realignment and redirection of energy, and (3) functions continuously. Meeting these requirements the agent can create negative entropy or reverse entropy or (as used here) *syntropy*.

In applying this wider concept to organisms and social institutions such as neighborhoods, schools and households, the idea of a "sorting demon" becomes even more engaging. (The usage can only be an analog because these are not closed systems.) In social institutions the demon becomes a "syntropic agent." The agent is informed, has the capacity to align and redirect energy, and functions continuously. Meeting these requirements the agent can control entropy and even reverse it.

The syntropic agent is the process set up by this *Guide*. *Information is the concept of the School and of the behaviors needed to implement it.* That is the key. The realignment and redirection of institutional energy is also part of the evaluation and strategic planning. But without information (the concept) the

NOTES Continued

process (the agent) cannot identify misdirected energy and the agent itself becomes as entropic as any other thing in the system.

As the action concept of the school becomes clear and is used in the process, *entropy* subsides; as the concept continues muddled, *entropy* increases even if there is a process of this kind. Thus the level of *entropy* can be interpreted here as *a measure of the weakness of the school's action concept and lack of information of what the school is to do within the lives of its students.*

Environmental Action,

Environmental action is synchronous with *environmental press*. If school authorities want students in their school to feel like it is a struggle, they will encourage both competitive action and the artifacts of competition, e. g., awards honorifics, defeats, etc.

A school with a warm, caring, and supportive press will likely sponsor cooperative activity, supportive social activity (such as aid to the elderly, victims of disaster, hunger relief, and so on). The textbooks used will feature helpfulness and include pictures and illustrations of individuals, institutions, and events that are associated with humanitarian enterprise.

By observing the action of the school environment one can intuit the press; being told of the press one can intuit the action (Cf., *Environmental Press*).

Environmental Press .

William James once remarked, "life may not be a struggle, but it certainly feels like one." The same can be said of some schools. Some schools want school experience to *feel like a struggle*. The reason they want this is the struggle of getting through school gets students ready for the struggles of getting through life. In such schools, competition dominates the *environmental press*. Students know who is on top and who is on the bottom. Every day produces winners and losers. There are numerous awards and much applause for a few who succeed and indifference in the many who still struggle on hoping they too can one day "succeed."

So, everyday the student heads for: school and into a struggle, and when the school day ends, the struggle ends. (But usually the "fight glands" keep flowing.) This is an example of *environmental press*.

On the other side some modern schools philosophize their environment to be "warm, caring, and supportive." Unlike the school that is a struggle, emotional strains are eased, not aggravated. The press is toward harmony and cooperation. Competitive drives are accommodated, not fostered, not featured, and not celebrated. This is another example of *environmental press*.

Global education is partly subject matter, but some argue it is mainly a human orientation to the wholeness of the planet and the interconnected interdependence of its inhabitants. This kind of orientation is fostered by an *environmental press*. The art that is taught and displayed, the music that is taught and performed, the events that are celebrated, the modeling done by teachers and other adults, all combine in creating the "global awareness press." This is another example. Cf., *Environmental Action*.

NOTES Continued

Synergy,

Even now we are accustomed to saying of a school that it is "alive" or it is "dead" We use terms such as "lethargy," "lassitude," "inspired," and "lively." We say that a school is "turned on" or that it has been "turned off. " So, by our language, we reveal our intuition that a school is a particular form of energy, but we have not gone very far beyond that.

We do not know much about how educational energy becomes available and, at times, it seems to disappear and we are not bold enough to say that when the energy is there a school is there and when the energy is gone the school is gone - no matter what the "appearance" may suggest. Despite our modern intuition, we are not yet bold enough to say that a school is a center of energy -not a "place." Even this *Guide* is not bold enough to do that, but it is a definite step in that direction.

In knowing about something, two things are important: (1) what it is made of and (2) how it comes together- *Synergy* is a study of the latter. In considering how *synergy* creates an environment of energy, it is interesting to fashion comparisons with theories of how the universe is making itself into what it is and is becoming.

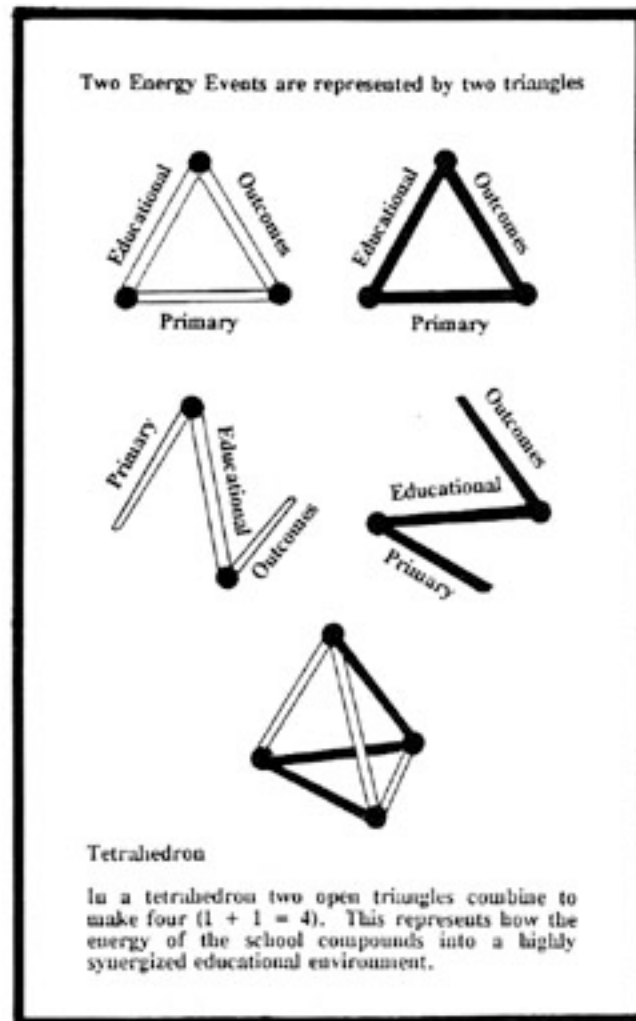
This, of course, leads to *triangulation* because the triangle is at the base of complicated mathematical explanations of quantum behavior, the formation of atoms, and the construction of molecules. The current mathematics of nuclear synergy are not suitable for application to studies of social institutions, but these propositions lead to interesting insights and open new paths to the study of institutional energy.

We now know the fundamental error in Locke's (early Eighteenth Century) formulation is in philosophizing from "appearances." We use it here as a place *to begin* because at the school at the beginning of the self-study is the one that appears in our senses. But (as we also now know), all of Locke's so called qualities are really the surface characteristics of the primary nature. Even so, Locke's formulation can serve as a fruitful analog of the quantum. The "qualities" can represent the electron, proton, and neutron; one is the action; one the reaction; and, the other the resultant; and this is a basic *energy event*.

One of the fascinating things about this is the way the three force units (natures) interacting in a way represented by an open triangle, combine with three complimentary units of another open triangle. The conjunction of the two triangles forms a tetrahedron which consists of four triangulated surfaces.

Hence, $1 + 1 = 4$, as shown (on next page):

NOTES Continued



If we simply imagine the "natures" to be *forces*, the primary, educational, and outcomes *forces* combine tetrahedrally, octohedrally, and icosahedrally. The total available energy can be equated to the radically expanding surface areas of the increasingly complex figures that do develop. Thus, these "forces" synergize into a field of available energy, and *we* can think about that as a school.

Utilizing this analog the amount of energy available depends on how the forces *synergize*. It explains why some schools with strong forces, i.e. faculty, facilities, program, materials, etc., seem to have a limited amount of available energy. Sometimes they are described as "lassitudinous" while other schools with what appears to be weaker forces seem more energized and are described as "inspirited" and "alive."

Evaluation has looked mainly to strengthen the forces, e.g., strengthen the faculty, improve the materials, revise the programs, etc.

NOTES Continued

But this may do nothing more than create the *possibility* of greater energy. As these forces increase, they tend to be more about themselves (see Section Six, Rules of Entropy). So an increase in a given force can increase *entropy* and, thereby, even reduce the amount of energy that enters the life-world of the students.

All this means is that evaluation must begin to produce judgments about *synergy*. Building up the forces that surround the life-world of the child does not necessarily mean that more energy will be delivered into the life-world of the child.

Triangulation,

The use of Locke's formulation as a point from which the community begins concept formation is only in part due to its common sense appeal (so eloquently defended by Bertrand Russell and others). Its principal value may be in its triangulated format which places thought about the reality of a school in coherence with modern *quantum thinking* (although the worth of doing that remains to be seen).

Long before the advent of the quantum (or basic energy event) humankind has been fascinated by trinities, e.g., the perception that the world is three dimensional, the Christian divinity has three aspects, movement is explained by three forces, the drama in the relationship of two is found in the resultant, and so on. The theoretical dynamics of the quantum whether explained by particles or waves, utilizes *triangulation* of subatomic identities.

In the text of the *Guide*, Figure 1 appears Euclidian (an equilateral triangle whose sides are connected at "points"). The triangle is closed. However, in Figure 4 the sides are shown in a force relationship and the triangle is open.

The modern triangle is not closed. The points are places where lines of force overlap and are more realistically depicted as pivots (as the "hinge" point in a pair of scissors). The difference, however, is the way the lines come loose from the pivot to take on the aspect of a spiral and unite with the pivots of other triangles to form more complex figures such as the tetrahedron, and the way the tetrahedron opens to form an octahedron and they combine as in an Icosahedron such as the environmental scenario on the title page of Section Six. The tetrahedron is said to represent a basic quantum unit and is used to model the way energy becomes matter (and by some theories the way matter becomes the entropy of the universe).

So what we have is an analog (which the present state of our logic does not permit pressing too far). The primary qualities of the school may be analogous to the electron, the educational qualities, the proton, and the outcomes the neutron. Hence, as the primordial energy of the universe builds the material world so also do those of the school build it into an environment of action. (See Notes on *Synergy*.)