ACHIEVING HUMAN POTENTIAL

A PLAN FOR GROWTH

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Achieving Human Potential
CONTENTS

List Of Figures ................................................................................................................ix

Acknowledgements .............................................................................................................xi

Introduction: WHY WE NEED A CONCEPTUAL SYSTEM FOR HUMAN DEVELOPMENT AND EMPOWERMENT .......... 3

Chapter 1: THE ROLE OF PERSONAL DEVELOPMENT IN MAKING THE WORLD A BETTER PLACE ................................................. 9
Definitions Of Basic Development-Linked Terms ......................................................... 10
The Role Of Individual Development In Social Advancement ...................................... 14
The Pattern Of Ideal Development In Advancing Systems (PIDAS) ................................................................. 18
Prospects For Pursuing Optimal Development At The Community Level: The Role Of The Human Development Council ................................................................. 20
Practical Tasks That The Ideas In This Chapter Will Help To Do Better ................................. 22
Ideas To Remember From This Chapter ......................................................................... 25

Chapter 2: A COMPLETE PERSON ................................................................. 27
Development-Stimulating Situations During The Lived Day ......................................................... 28
Human Development Dimensions Considered In Planned Development Situations ................................................................. 30
Opportunistic Development Situations: What Additional Attributes Of A Human Being Need To Be Considered? ................................. 41
Long-Term Intimate Relationships: Adding An Internal Consciousness-Orchestrating Mechanism (ICOM) To Our Conception Of A Human Being ................................................................. 46
Chapter 5: GROWTH SCHEMES: ESSENTIAL TOOLS FOR PLANNING AND MONITORING GROWTH IN VALUED HUMAN ATTRIBUTES

Why We Need Descriptions Of Potential Growth Paths
Growth Schemes: Building On Intuitive Notions Of Growth
Growth Schemes For Dimensions Of Development
Growth Schemes For ODND-Linked Schemas
Growth Schemes For The Engagement Of Major Life Focuses
Growth Schemes For Very Complex Tasks
Growth Schemes As The Culmination Of A Sequence Of Ways Of Setting Expectations For And Monitoring Development
Ideas To Remember From This Chapter

Chapter 6: ENHANCING THE IMPACT OF TEACHING ON HUMAN ADVANCEMENT
Teaching As A Nurturing Process
Using CSHDE Concepts To Advance Our Thinking About The Teaching/Learning Process
How Can We Improve The General Level Of Teaching In Our Society?
Ideas To Remember From This Chapter

Chapter 7: EMPOWERING SELF-DEVELOPMENT
Going Beyond Common Meanings Of Empower And Enable
Generic Strategies For Higher Order Empowerments
Subordinate Skills For Higher Forms Of Empowerment
Empowerment For Attributes That Do Not Have An Evident Schema Base
Empowerings That Need More Complete Fostering In Our Culture .................................................................283
Ideas To Remember From This Chapter .................................289

**Chapter 8: WORKING TOGETHER TO FOSTER HUMAN DEVELOPMENT** ........................................................................291
Working Together: Definition, Propelling Intuition And Resulting Terminology ......................................................292
A Basic Working Together Schema .......................................296
Analysis Of Past Attempts To Work Together ......................299
The Future Of Interagency Collaboration For Human Development ........................................................................323
Ideas To Remember From This Chapter ..................................331

**Appendix A: HOW CSHDE WAS DEVELOPED** ................335

**Appendix B: THE DOMAIN OF IDEAL HUMAN CARE** ......348

**Appendix C: ADVANCING HUMANITY THROUGH COMMUNITY FOUNDATION PROJECTS** .........................355

Notes ..........................................................................................361

Glossary ......................................................................................369

**Contributors to CSHDE** ..........................................................375
LIST OF FIGURES

2.1 A model for the self-directed learner ............................ 50
2.2 Model For A Fully Functioning Human Being .............. 51
2.3 A Model For A Complete Person ............................. 53
3.1 Optimal Development Nurturance Domain ................. 78
4.1 Schema for decision-making process .......................... 108
4.2 Decision-making example ........................................ 110
5.1 A simple growth scheme for hand washing ................. 154
5.2 A growth scheme for fielding a ball ......................... 158
5.3 Growth scheme for decision-making ......................... 159
5.4 Two levels of decision-making matrix ....................... 161
5.5 Growth scheme for risk management ....................... 168
5.6 A mental model for creating progressively more 
nurturant relationships .............................................. 170
5.7 Primitive nurturance schema ................................... 174
6.1 A Model For Educational Processes ......................... 200
6.2 A mental model for the teaching/learning process ... 206
6.3 Unit design schema ............................................... 208
6.4 A growth scheme for teaching ................................. 224
6.5 The Holistic Development Teaching Strategy ............ 227
7.1 A sequence of potential empowerments for 
performing tasks ...................................................... 251
8.1 The Service Integration Scale ................................. 295
8.2 Basic Working Together Schema ........................... 297
8.3 General problem solving model .............................. 303
8.4 Interdisciplinary Skills List .................................... 305
8.5 A socio-ecological system for the management of a 
particular case ......................................................... 308
B1 The Domain of Ideal Human Care .......................... 351
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Achieving Human Potential
INTRODUCTION

WHY WE NEED A CONCEPTUAL SYSTEM FOR HUMAN DEVELOPMENT AND EMPOWERMENT

PROPOSALS FOR THE advancement of society or for making a better world are increasingly focused on the attainment of human potential. Recent events in the province in which this book was written show dramatically how far this has proceeded. For example, in the early 2000s, the provincially articulated vision for Ontario communities was “individuals and organizations working together to foster the optimal development of all citizens”. About the same time, the Ontario government began to advertise this province as “a place to grow” and made a promise to its youth that it will help them “realize their full potential”. Closer to home, the Mission Statement of the regional school board is to “develop students’ full potential in support of life-long learning”.

Similar statements have been written in other provinces and countries by many different organizations and government agencies concerned with human betterment. Indeed, there appears to be an emerging international humanism whose first principle is the full development of every human being in support of the intent to create a world that embodies the best that human beings are capable of.

These kinds of declarations are rich in imagery, poetic in nature, and for a short time after their hearing generate an impulse to take some kind of action to make their listener’s particular community a better place. But that’s where their impact ends. Having expressed this urge to work from a self-transcendent purpose and perspective, the expounding agencies almost immediately revert to business as usual. They will periodically reaffirm their vision, for example printing it on their public announcements and advertisements, but rarely do their actions follow logically from it.

Different explanations have been given for this huge gap between stated visions and what social agencies actually do. The most cynical is that just uttering a growth-oriented vision statement confers good feeling on the utterer and projects a public image of impending virtuous conduct, even when there is no concrete intention of following through on it. A second explanation is that, even when sincere intention is present, the pressure and strain of carrying out standard organizational practice leaves no time or energy for taking on the substantial new initiatives required by the vision.

The authors’ view is that while there is some truth in these explanations, the most important impediment to implementing optimal development visions lies elsewhere. Quite simply, those advocating optimal development have lacked the concepts and operationalizing strategies necessary to make the transition from the vision to a realizable action plan. Using other metaphors,
we may think of that lack as a missing conceptual bridge or a missing conceptual infrastructure.

Such an infrastructure was put together during the progress of a six-year funded project (2000–2006) concerned with stimulating the development of young children. Published under the title *Fostering Human Development and Empowerment: A Conceptual Bridge Between Vision and Action*¹, it built on a now half-century-old thrust in human development that involved growth-promoting interventions with individuals from preschool to postgraduate level. The broad outline of this long-term project can be found in Appendix A under the title How CSHDE Was Developed.

The present volume presents an update, refinement, and extension of that initial work. It deals with eight tasks that both common sense and analysis tells us must comprise the main supporting beams of this bridge between vision and supporting action. By chapter topic these tasks are to:

1. Present a convincing case that we will advance society or make the world a better place to the extent that individuals achieve their potential as human beings. The idea that we need to develop human potential to its fullest, despite the increasing endorsement described earlier, has not yet become a dominant or even visible motivating force in personal or political agendas.

2. Identify the most important dimensions of human development that society needs to foster and how these dimensions act together in what our society takes to be a human being who has reached his full potential. Our success in stimulating the development of an individual will be proportional to the depth of our understanding of how his human qualities act together in engaging the challenges of everyday life.
3. Identify the common set of interventions that are necessary and sufficient to promote the fullest possible growth in each dimension and in the whole person. We all know of the need for protecting and meeting basic needs, but among the essential interventions must also be teaching and enabling the individual to take control of her own development.

4. Construct mental models for guiding each of these interventions that are sufficiently flexible to enable us to undertake them in a broad range of contexts.

5. Identify growth paths for performance on each human dimension and mental model. We need especially to identify critical growth transitions, so we can focus our efforts on attaining them and monitor our progress in attaining them over time. Without these, all interventions are diffuse and ineffective.

6. Design teaching strategies that are effective in promoting growth. As our aspirations for development rise, we have to go beyond telling and showing how, the dominant methods of promoting learning in our culture, to employ methods that cause the learner to reconstruct the internal mental models that govern his behaviour.

7. Identify an empowering strategy by which individuals can progressively take control of their own continuing development. If they are to realize their full potential they must continue to grow after they leave the charge of formal teachers and begin to deal with the inescapable challenges of everyday life.

8. Create strategies for organizing and cumulating the impacts of the different agencies that work with common clients.
Natural egocentricity causes agencies to believe that they can promote significant development on their own, but it does indeed require individuals and agencies working together to foster optimal development.

These eight tasks comprise the core of what is appropriately called “the human development mindset”. Its dominant motivating beliefs are that our species has attained only a modest part of its potential and that we should collectively strive to become the best that human beings can be. Because the dominant goal of this mindset is the fullest possible development of human potential and the dominant strategy for achieving it is to start at birth, the mindset might be named “developmental humanism”.

This will be a long, probably interminable, process. The pace of advancement will plausibly depend on the extent to which human beings are engaged throughout life by environments in which the eight development-supporting tasks are effectively undertaken. This suggests as potential beneficiaries of the ideas in this book a sequence of agents that society will have to depend on to perform the tasks over an individual’s life.

First and foremost are the parents of the very young. Parents not only have the most profound and long-lasting influence on their children’s development but are as well unequivocally the most passionately interested in their children becoming the best that human beings can be. The authors were encouraged that most of the parents involved in our early learning projects over the years grasped intuitively the sense of the human development perspective and understood the critical importance of their own thought-out stimulation of their young children.

As children grow older they will also be engaged, and their development will be shaped, by school-based teachers; instructors in religious, cultural and recreational agencies; vocational and life task counsellors; practitioners in health and
protection agencies; employers; the public media; and—in life’s final stage—long-term care providers.

We may think of all these groups as the primary development stimulators in a human community. They do their work within a complex network of secondary development supports—especially the community’s political and economic structure and resources. The widespread adoption of the human development perspective will require championing by the community’s political and social leaders. Its implementation will require an economic base sufficient to support innovative practice.

The authors hope that CSHDE will be further refined and grown as our knowledge about human beings advances. But even in its present form, the CSHDE concepts and strategies seem invariably to allow us to take current ‘informed’ discussions of social issues and plans for human betterment to new levels of depth and constructive proposal. We will attempt to substantiate this bold claim for each of our major concepts as we introduce them in the succeeding chapters.
CHAPTER 1

THE ROLE OF PERSONAL DEVELOPMENT IN MAKING THE WORLD A BETTER PLACE

IN THE INTRODUCTION we stated that phrases such as “achieving full potential” and “fostering optimal
development” are employed with increasing frequency in the visions, mission statements and goals of agencies who conceive of their work as “making the world a better place”. In this chapter we try to deepen our understanding of this relationship between the development of human potential and the advancement of civilization. After defining our basic development terms we outline a succession of historical and contemporary views on what would constitute the “advancement of civilization” or “the creation of a better world” and the role that the development of individual citizens plays in each view. We then advance a central hypothesis of our book as to why the emphasis on working together to realize potential or optimize development is gaining momentum. In the last part of the chapter we explore the
practical benefits of applying the development-linked terms we have defined beyond the context in which they were originally constructed.

**Definitions Of Basic Development-Linked Terms**

Before any rational discussion can occur, the participants must agree on the definitions of the key terms to be used. But life teaches us that precise definition is strictly possible only in mathematics and the physical sciences. Where human matters are concerned any definition comes with a certain amount of ambiguity. In this book, our effort to define terms builds from the simplest and constructs meanings cumulatively. This maximizes the prospect that these meanings will be understood and remembered.

We start then with the word “develop”, a verb meaning to bring out the potential of something by expanding it. Building from this we may say that “development” refers either to a process of gradual realization of potential or to the product of that realization. This makes sense in the common understanding of the physical development, intellectual development and spiritual development of individuals. The so-called “development process” can also be referenced to life stages, as when speaking of child development or adolescent development.

The word “grow”, also treated as a verb, means to become more in quantity or degree. “Growth”, then, refers to the process of becoming larger or to the difference in levels of maturity measured between two points in time. The latter is what is normally meant when we say that someone has shown physical, intellectual or social growth. The terms develop and grow and their common derivatives are obviously related in meaning and may often be used as synonyms.
It is also useful to introduce at this stage the concept of “maturation”. By this is meant the naturally occurring process of development, such as a continuing increase in physical height, which is largely driven by internal (genetic) mechanisms and proceeds in an environment that provides for basic needs. This is to be contrasted to the growth, for example, in the skill of throwing a ball that results from learning.

For the authors, the most useful linguistic construction for the term “empowerment” is the process designated “to empower”. This will mean to inculcate the strategies by which an individual can take control of his own development, hence stimulate his own personal growth. An individual will be said to “be empowered” (the result of a process) to the extent that he has acquired these strategies.

To this point we have constructed a sequence of linked terms, starting with “develop”, that cumulate meanings as we proceed through them. It is important to note that our sequence might also have started with “grow”, defined as a product, and then have defined “development” as the process that results in growth. Also, any sequence of definitions will necessarily start with a term that is not itself defined—in our case the word “process”—the assumption being that there is sufficient intuitive understanding of its meaning to make sense of these ensuing terms. This is to say that formal definition can only clarify meanings to a certain degree, and that the context in which a word is used must be counted in to do the rest.

We continue our definitional sequence by turning now to the three phrases most commonly used today in the visions, mission statements and goals of organizations that believe they are contributing to social advancement. To recall, these phrases are healthy development, full potential and optimal development.

“Healthy development”, though lacking a formal definition, is a term used primarily by health-linked agencies and
appears to refer to meeting the norms (called “developmental benchmarks”) in the community for achieving, by designated ages, described levels on important human dimensions. Typically, benchmarks are constructed for physical, intellectual, emotional and social dimensions, and each can be subdivided. For example, the physical dimension can refer to physical attributes of the individual (such as physical strength) or to the employment of these attributes in the engagement of external objects (such as throwing a ball). Because they are based on what occurs by maturation alone, benchmarks do not reflect the impact of highly focused interventions and so tend to systematically underestimate the rate at which children are capable of developing. On this analysis “healthy development” as it is presently understood may leave much of human potential untouched.

On the other hand, the term “realizing full potential” is a figure of speech used to capture our hopes for what people could become over the course of their lives. This term seems to refer to the greatest enlargement of the individual’s developable attributes that his genetic endowment will allow. Although the dominant goal of contemporary humanism, it ignores the fact that most do not have the self-favouring access to the community’s resources that the complete development of any single attribute would require. In addition, no individual possesses the resource of time that would be needed to develop the whole range of his capacities to their fullest. World-class athletes, or musicians or mathematicians typically spend much of their lived days building up their skill in a very limited range of human attributes. “Realizing full potential” is thus too idealistic for planning for human development at the community level.

In summary, although widely used, neither achieving healthy development nor realizing full potential are practical concepts for setting development goals. So we want now to propose that a thoughtfully constructed meaning for a term
such as “optimal development” could serve as the needed, long-range rallying term for a human community’s development thrust.

To start, our definition builds on the commonly understood idea that “optimal” is in some senses “best”. One important criterion for what constitutes the best or optimal development for any individual is that it expresses to a high degree that person’s innate capacities and personal passions in those human aspects or dimensions most valued in his society.

Next, the optimally developed person must possess the ability to acquire new knowledge and use it effectively. Useful knowledge is not only that which has been codified by science and incorporated into formal learning programs. It includes as well what can be learned from reflection on life’s successes and failures. As development advances, these two distinctive forms of knowledge are synthesized and combined with intuition and the promptings of conscience when determining what is “the right thing to do” on any occasion.

Third, we suggest that the contemporary broadening of the meaning of “spiritual” reflects another essential criterion. This term is now widely used to refer to an apparent human need for a sense of caring connection or attachment to something—a force, group, movement, cause, or being—that is larger, more powerful and more enduring than one’s own life. And because a near universal expectation is service to some group outside oneself, an optimally developed human being will have transcended the exclusively self-centred focus of the very immature.

The foregoing notwithstanding, an individual’s development could not be considered “best”—either from a personal or community perspective—if it was attained through the use of an unfairly large proportion of the resources of the groups in which he is a member, especially of the family and local community. In democratic human societies at least, the
concept of optimal development must incorporate the notion of fair distribution of these resources.

One of many possible ways of combining these criteria could be to say that a person will be considered to be optimally developed to the extent that (i) his innate, socially valued capacities and interests are as completely developed as is enabled by an equitable distribution of the existing resources in the communities in which he resides and (ii) these capacities and interests are drawn into strategies for engaging life tasks that employ a synthesis of learning from successful life experience, valid scientific knowledge and self-transcending sources of influence. We think that these criteria could also be incorporated into a definition of “fullest possible development” and that this term may prove more popular if and when the current popularity of the term “optimal” subsides.

Both optimally developed and fully developed describe endpoints or results of the process of development over a long period of time. In Chapter 2 we will construct a dynamic image of this process in operation in a human being, what we will call a Model For the Complete Person.

The Role Of Individual Development In Social Advancement

For the authors, the fullest possible development of individual human beings is a self-evident requirement and first priority for the most rapid and greatest advancement of civilization. But we recognize that this is hardly a universal view, that the fullest possible attainment of their full potential is hardly the dominant goal of most adults, or even a major concern in their everyday life. Rare is the person who starts each day by asking, “How should I try to grow today as a human being?”.
The truth is that there exists in the world today a continuum of views on what would make for a better world, on the most effective means of achieving this, and on the contribution of fullest possible personal development in carrying out that means. At one extreme—of ancient origin but still alive today—is the view that human beings, possessing a nature constitutionally disposed to sinfulness and are not capable by themselves of making the world a better place. Rather, at some point our existing civilization will be destroyed by its Creator and replaced by a new social order in an earthly paradise. What is required to participate in this paradise is repentance of one’s sins and obedience to the Creator’s commandments. When these commandments are presented orally by ministers of the faith, there is no need or incentive even to acquire the basic literacy skills that advanced civilizations take for granted. In this view, the development of an individual’s multi-faceted human potential in this life is of little consequence.

At the same time it seems that most adults today do believe in the possibility of “making the world a better place” or, more grandly, in the “advancement of civilization”, and they look first to the removal of those global forces that clearly act against human well being. In times of international strife the elimination of war and violence generally will first be mentioned, and the necessary means is seen to be government action. If there is widespread want and poverty, their elimination will be the top priority and the expansion of the world economy and sharing the resulting wealth the envisaged means. The reduction of disease will always be seen as an improvement in the human condition, and science the means for bringing it about. And protecting the biosphere and its plant and animal life is increasingly seen as essential to the continuation of our own species and the combined action of science and government is thought to be the necessary means. A need for the development of human capabilities can be read into these social initiatives, particularly, in the latter two, for
the acquisition of science-based knowledge—but that is an afterthought rather than a central concern or effort.

When believers in a better world centre their focus on the lives of individuals like themselves, they tend to think first of increases in the standard of living, which can be roughly estimated by the dollars spent on meeting their basic needs. An enhanced standard of living is to be achieved through a combination of general government income support, specific job training and, where needed, additional assistance from community social service agencies. It is assumed that human beings have a capacity and obligation to acquire those skills necessary to be self-sufficient—and possibly even competitive—in this temporal life, and hence to be able to purchase the material goods and services on which the modern standard of living is premised. Increasingly, science is considered to be the most important force for advancement in human life especially in its ability to create new technologies and associated jobs. Thus, there is a growing belief that the acquisition of scientific knowledge and problem solving skills are important avenues of human development that need to be added to the traditional literacy and numeracy core of the common curriculum.

Moving on, although “quality of life” has proven resistant to definition, it seems to refer to an individual’s (subjectively experienced) degree of satisfaction with his health, work and relations with others, and it is thought to be enhanced by the efforts of a community’s social and cultural agencies. Quality of life hints at some kind of growth on the individual’s part in fully responding to the opportunities presented, but the term does not identify the kind or amount of growth needed, or suggest it should fully employ inherent potential.

Moving further right on our continuum we can identify both secular and religious perspectives that do call for a more comprehensive development of human potential. The great majority of the religious in Western society—while believing
that developing a relationship with God is of first importance—
nonetheless also believe that they have an obligation to give
substantial service to others. Many Christians we know believe
that Christ’s first “commandment” was to “Love each other as I
have loved you”. Obviously the level of personal performance
in this task would be proportional to the level of understanding
of human nurturance and skill in nurturing others. Similarly,
the human development requirements of involvement in such
other great secular causes as saving the environment become
obvious on analysis of what these would require in practice.

On deeper analysis, then, all the positions on human
betterment so far located on our continuum, suggest or hint
at ways in which individuals must develop their human
capabilities. But none call for comprehensive or optimal
development, or suggest that humans should be pushed to the
limit of their potential.

This brings us to the far right of our continuum and the
calls for optimal development and realizing full potential that
have been advocated by a surprising number of social agencies
since the beginning of the 21st century. The authors have been
especially attracted to the frequently expressed vision for Ontario
communities as “individuals and agencies working together to
foster the optimal development of all citizens”. In this vision,
the defining characteristic of the advancement of civilization
is the “optimal development of citizens” and the means are
an unnamed set of actions designated “working together”.
Determining what these actions must be and the strategies by
which they can be accomplished is the primary effort and subject
matter of both the first and present versions of CSHDE.

It appears that this theme of working together to optimize
development, advanced to date primarily in what might be
thought as the “secular literature”, is also acceptable to high
religious authority. This was demonstrated by the advice given
at the wedding of Prince William and Kate Middleton by the
Bishop of London when he said “marriage is intended to be a way in which man and woman help each other to become… their deepest and their truest selves”. The working together is central to this statement and an outcome akin to optimal development is strongly hinted at in “deepest and truest”.

The Pattern Of Ideal Development In Advancing Systems (PIDAS)

The enunciation of this two-part theme during the first decade of the 21st century became so widespread that it led the authors to believe that it reflected a human advancement theme that is deeply embedded in the human psyche, presumably because it reflected some larger principle at work in the universe and operative in everything that exists in it. And when we reflect on it, the coming together part of the theme seems to be consistent with what science tells us about evolutionary advancement. We are informed that immediately after the “big bang”, particles came together to form larger particles, which after many repetitions of the coming together cycle became basic chemical elements, which much later became living cells, then living organisms, then humans. This continued in social evolution, as families formed into tribes, which in turn came together in states, then into countries and now seems to be moving toward the establishment of a world governing body. At every step the coming together formed new entities that could accomplish things beyond the capabilities of the individual constituents.

Over the past decade the authors have tried to find an appropriate name for what appears to be a universal principle of advancement. The first name we came up with was the Principle Of Development in Living Systems (PDLS). But we soon realized that this coming together to create something that
could do what the individual components couldn’t on their own applied to non-living mechanical devices as well.

Besides, PDLS was missing something that we can discover by examining how it applies to the process of two people coming together in marriage. True, a new entity or process is created, capable of something that neither partner is able to do on its own. But we know that comings together in marriage have a far from perfect survival rate, and are most likely to survive and thrive—that is, to advance—when there is some kind of equality in each partner’s chances for personal growth and related satisfaction. So in 2012 we renamed the general principle of advancement as The Principle Of Ideal Development In Advancing Systems (PIDAS) and worded it as follows: *Systems continuing to grow toward optimal development as they come together to create a larger system with capabilities beyond their own.*

PIDAS could be considered the intuitive understanding that is currently expressed in the proposed “coming together to foster optimal development” strategy for human advancement. Things coming together to develop more complex and potent entities seems to be the natural path of change in our world, and reflects what human societies today consider ideal advancement to the extent that each constituent continues to grow toward full potential. A confident inference is that the pace of advancement in any human group will be proportional to the amount of effective enactment of PIDAS within the group. To maximize human advancement the group will have to foster the fullest possible development of both the individuals (e.g., individual partners), and the larger process (e.g., the family). The characteristics we have attributed to the optimally developed human being would seem to make them ideal candidates for PIDAS enactment—especially sharing resources and contributing personal strengths to the forming relationship (coming together).

We have given this bare sketch of PIDAS primarily to argue that the continuing growth and development of individuals and
groups seems central to the sense of ideal advancement on our planet that we can retrieve from a scientific account of its human physical and social evolution. This gives the fullest possible development theme a special credibility within the continuum of views on human advancement. However, we anticipate that PIDAS will need further refinement and (probably) renaming before it becomes both comprehensively logical and completely congruent with life experience. Hopefully much of this will happen in our attempted applications in subsequent chapters. In some of these we will be bringing this initial PIDAS into relationship with other conceptions, in effect, applying the PIDAS principle to itself.

Prospects For Pursuing Optimal Development At The Community Level: The Role Of The Human Development Council

As previously described, there is huge diversity of opinion on the importance of personal development to the advancement of civilization. This seems to pose a huge difficulty for those who share the common Vision of human communities working together to foster the optimal development of all members. Surely, some will argue, there will never be agreement on what constitutes the “fullest possible development of all citizens”.

We accept that it is sensible to believe that the extreme views cannot be reconciled in concrete plans for working together. For example, we cannot reconcile the philosophy that human nature and civilization are incorrigible and are awaiting their Creator’s destruction with the view that we should develop those capacities necessary to thrive and be happy in an earthly paradise. All we can hope for between these extremes is co-existence—that is, that their proponents do not try to hurt each other, and agree to abide by rules for sharing the earth’s resources.
But at the same time we can envisage a broad alliance of those who are already committed to, or could be persuaded to support, positive human development that matches human potential. These would include all the agencies suggested in the Introduction as potential readers of this book. We can think of them as people who accept a PIDAS-like principle as a fundamental defining scheme for their own personal development, the development of their children, and the development of all other community citizens.

We have long advocated that the mobilization of such an alliance in Canada will require the creation of a community-based Human Development Council, which would take its place with the already existing Economic Development Council and Environmental Developmental Council as one of the three guiding forces for community advancement. This alliance would pursue a progressively more advanced level of working together. Such an advance would move through acquiring a greater understanding of the commonalities among each other’s human development goals, providing mutual assistance to others in achieving common goals, setting age-referenced community standards for personal development and, finally, making and implementing joint plans for meeting these standards.

Although the logic of the Human Development Council seems unchallengeable, we have so far had no success in getting a community to set one up. However, as a promising first step in that direction many communities across Canada have set up Community Foundations, agencies that fund a wide variety of “improving our community” initiatives. If Foundations can be persuaded to ask for the intended development impacts to be described and assessed as a condition for funding, a substantial groundswell of human development initiatives would be initiated—surely a boon to the human development thrust generally and a stimulus to establishing a Human Development Council.
In support of such a Council we need then to further develop the concept of optimal development and the actions required to bring it about. This will serve as part of the common vocabulary and understanding of those who want to push as far along this sequence and on the broadest possible development front that their capacity to dialogue and grow allows. Again, this is the essential task and substance of our book.

The authors acknowledge that the construction and dissemination of conceptual schemes will not in themselves be sufficient to sustain the long-term effort required to make a community Human Development Council an effective force for the continuing better realization of human potential. As we suggested in the Introduction, this will require the working together of the educational, political, economic, cultural and spiritual forces that act on the lives of individuals. And what will be needed to power this coming together is a conviction of a large part of the population that living their personal and public lives in accordance with a superordinate principle of ideal development like PIDAS is their best chance for happiness and fulfilment in this life.

**Practical Tasks That The Ideas In This Chapter Will Help To Do Better**

The authors are constantly mindful that their presentations will sound too “theoretical”—and some will use more offensive ascriptions. So here we will point to what can be thought of as immediate practical applications of the ideas presented.

**Clarifying Our Own Views On Personal Development**

Most of us have done very little in the way of clarifying our own thinking about the scope and magnitude of needed personal
development. We have a feeling that civilization should advance in some way from generation to generation, but tend to conceive of this advance as people having longer lives, better physical health, a higher standard of living and better protection from violence. We have known very few people who awake each morning with a clear sense of how they need grow to be more complete human beings.

We can be appalled by individual human acts, but don’t translate this into the need for humankind, including ourselves, to adopt a generally higher code of conduct, which in turn will require advances in every dimension of human development. Those of us who earnestly advocate for significant human advancement must come to think that this will require growth in all individuals, beginning with ourselves, and be acutely aware of the kinds of personal growth that we are currently pursuing.

Generalizing The Working Together Vision And PIDAS To The Hierarchy Of Human Communities

Our reference to a human community probably conjures up an image of the municipality in which the reader resides. But the basic social science meaning of the term could include as communities the family, neighbourhood, municipality and province, if not country, continent and world. We can envisage these as a set of concentric circles moving out from the individual at the centre. As we move outward, the community at one stage becomes an element of a larger community at the next. For example, the world is sometimes referred to as a family of nations.

This kind of representation is commonly called a socio-ecological system. Instead of viewing the individual as an isolated element, we now see him as “a person within a family that is within the community”. And we come to understand
that the way the family impacts on the individual can be greatly influenced by the way the community impacts on the family.

The advantage of extending the vision for an ideal community and associated human development thinking both downward (to families) and upward (to the world) is that we are immediately presented with a superordinate goal for that community, an awareness of the likely range of positions in the community in regard to that goal and a suggestion that we can advance overall human development within it through the equalization of development resources. Who would contest the vision of a family as a group of individuals who work together to foster the fullest possible development of all its members? And who would deny that there can be widely divergent views within families about what constitutes the most important kinds and needed amounts of development, or that families are happier when development resources are equitably distributed? Or again, that there needs to be a broad alliance for development support within the family, involving both parents and siblings?

This vision of a community counteracts the tendency to lower our aspirations for human advancement as we move outward in the expanding set of human groups to which the individual belongs. The most frequently prayed-for outcome for the world community is peace, the second is freedom from want and the third is the elimination of disease. Countries working together to promote the fullest possible development of the human potential of the people of all nations would be a magnificent goal for world government. Recognition that the world will be a happier place when its resources are equitably shared would shame those of us in the prosperous countries into increasing many times over what we now contribute in money and personal effort to developing countries.
IDEAS TO REMEMBER FROM THIS CHAPTER

Because the concepts in this book are developed cumulatively, it is important that we incorporate in long-term memory ideas that are essential for understanding later chapters.

1. With increasing frequency, the Vision, Mission statements or stated Goals of human communities and agencies (i.e., statements of the impact they hope to have on their members) refer to fostering optimal development, healthy development, or the achievement of full potential.

2. The starting points for defining potential-related terms in this book are “develop” and “grow”, understood as processes of becoming larger or more mature. Building from these, we can cumulatively define development, growth, maturation, empower, healthy development, full potential and optimal development.

3. In this book, a person will be considered to be optimally developed to the extent that (i) his innate capacities and interests in socially valued qualities are as completely developed as is allowed by an equitable distribution of the existing development-supporting resources in the communities in which he resides, and (ii) these capacities and interests are drawn into strategies for engaging life tasks that employ a synthesis of learning from successful life experience, valid scientific knowledge and self-transcending sources of influence.

4. We recognize that there is a range of views on what would constitute the advancement of civilization or the creation of a better life, and on the kind and degree of personal development required to bring about these kinds
of outcomes. Particular support for pursuing optimal development of individuals comes from what we have called the Principal of Ideal Development in Advancing Systems (PIDAS): \textit{Individual systems continuing to grow toward optimal development as they come together to create a larger system with capabilities beyond their own.}

5. The most extreme views about the kind and amount of needed development cannot be reconciled. What we should aim for, rather, is a community-based alliance that allows agencies that support some form of positive human development to progressively move toward higher levels of working together. Movement progresses from learning about common development goals, to assisting with the achievement of these goals, to joint planning of the development agenda for the community. In Canada such an alliance will need promotion and guidance by a community-based Human Development Council, a counterpart to the already existing Economic Development Council and Environmental Development Councils.
CHAPTER 2

A COMPLETE PERSON

THIS BOOK IS about stimulating the optimal development of human beings. The impact of our efforts to do this would seem, plausibly, to be proportional to the sophistication of our working model for a human being.

So we begin the present chapter by identifying three kinds of situations in which the intention to stimulate human development is likely to arise. We then ask what we have to know about an individual in each of these situations so that we can effectively stimulate his development there. These understandings of the functioning human being are put together into a visual model for a fully developing human being. Finally, we discuss important life concerns that such a model helps one better engage.
Development-Stimulating Situations During The Lived Day

The opportunities to pursue development initiatives with human beings takes place in situations that are increasingly complex in terms of other tasks or processes that are being pursued at the time.

In what we might call “planned development situations”, one person (e.g., a teacher) has the intention of enlarging some developmental component of another person (e.g., the learner) who comes within his sphere of influence. This is what occurs when young people come to the classroom with the understanding that they will be taught about some subject or topic in which the teacher is more advanced than they are—and the teacher thinks of his learning objectives in terms of knowledge, skill and attitudes. But it can happen in many other life situations, as when an athlete submits to the instructions of her coach, a patient to the advice of a doctor, or the parishioner to the moral counselling of his pastor.

In a much more difficult “opportunistic” development situation, an interaction occurs between people who are at different levels of maturity in some socially valued dimension and one of them intuits or reasons that there is an opportunity to promote the growth of one or more of the others on this dimension. This is the case, for example, when a parent comes upon a child playing with a truck and, with an understanding beyond the child’s, sees an opportunity to enhance the child’s understanding of cause and effect. Or a friend has just told us about her ongoing, acrimonious separation from her husband and we sense an opportunity to get her to believe that, in the long run, she will feel better by having the best possible post-separation relationship with him. We say that such potential development situations are more difficult because the learner has not come to us for instruction; therefore her current interest
and motivation is not focused on the particular behaviour advancement we envisage to be possible. In our second example, the thought of anything but punitive action toward her spouse may anger our friend, so she may be far from keen to participate in the discussion we intend to have to enhance her understanding and attitude.

This kind of potential development situation is very widespread in life. In fact, it would rarely be the case that two people come together that one of them is not more mature in some form of socially valued behaviour. So a person naturally inclined to nurture others would be alert to “golden opportunities” to engage in or create a task in which this maturity advantage could be put to use to promote the growth of another. Indeed, as a generalization of the idea of being “over protective” we might even suggest that one might be “over nurturant”—meaning by this incessantly pressing for development rather than just letting a potential recipient enjoy the situation and moment.

In a common variant of opportunistic stimulation, a group of two or more individuals is engaged in some common process, such as a game, and different members are most advanced in its different components. So from moment to moment different members will spontaneously model their more advanced level of performance, in this way generating a series of mini opportunistic teaching engagements.

We now come to a third development situation, perhaps beyond description in anything but the poetic language of similes and metaphors. In complete and satisfying long-term relationships, as between lifelong friends or spouses, much time is spent together in various common activities. In many of these one partner does indeed intentionally try to act as development stimulator in one or other of the types of situations described above. Beyond that the partners may have a sense or intuition that, over the long term, they should—to quote the Bishop of London’s advice to Prince William and Kate Middleton in his
wedding homily—“help each other become their deepest and their truest selves”. This intention goes beyond teaching each other new bits of knowledge or coaching the improvement of routine life skills to a more comprehensive impact on, and shaping of, what each person becomes as a total human being. As mysterious as it may sound, this process is verifiable to varying degrees in human experience, and particularly evident in the lives of what Thomas Moore calls “soul mates”.

**Human Development Dimensions Considered In Planned Development Situations**

When someone comes to a teacher, coach, or advisor, this potential developer has to know what aspect of that person he will try to grow or develop. If, for example, one’s responsibility as an instructor is to teach algebra, in what aspect, part or dimension of his students is he supposed to foster growth?

Humankind’s earliest recorded development-related reflections were about a person’s essential components or parts. These presumed parts went beyond the visible body to include a mind, and at least one of a soul or a spirit. The same components were reiterated in the religious literature to which most of us were exposed throughout our early life, so we took their existence for granted without understanding or critical examination.

The terms soul and spirit are still in use today in religious practice, and we tend to use them as well in a metaphorical way in everyday, secular life. For example, we experience no mental discomfort in using the expression “heart and soul” to describe a complete giving of oneself to some person or cause, or coupling “soul” with such physical things as food (“soul food”) and music (“soul music”) and yet again, using the adjective “soulful” to suggest the engagement of something deep within the human psyche.
However, this components language is not very useful for guiding the achievement of potential or the advancement of human development because it does not lend itself to the identification of levels of maturity. The soul and spirit in particular are usually portrayed as being present or absent, but rarely as enlarging by definable steps. Thus it would be impossible to tell whether our effort to develop them to full maturity is making progress, or even whether this is a sensible thing to think about.

Thus when social agencies began to take human development as their goal, they had to identify the kinds of development they were aiming at, or the ways in which individuals could develop, and tended to think of these as “developable dimensions” of a human being. Such descriptions, going back to Gesell’s work in the 1920s,3 started at birth and moved through the first few years of life. Although there was some variation in the lists produced, they generally worked outward from children's most visible characteristics—that is, from physical structure and actions—to intellectual, emotional, and social behaviour. References to values and principled conduct were sometimes included under “social behaviour” but only in occasional reference that precluded clearly defined levels of development. When such a list was generated by a group broadly representative of the community, reference to “spiritual” development was scrupulously avoided on the fear that would be construed as referring to religious doctrine—an affront to a growing, strident secularism.

The choice of the five dimensions for development presented later in this chapter was based on several considerations. Since they were proposed during the course of an interagency project for stimulating the growth of young children, they had to make sense to the parents who were supposed to apply them in stimulating and monitoring the development of their children. At the same time, they had to be applicable to older people when growth in cultural values, ethical behaviour and self-transcendence are considered an important part of
being human. As a third consideration, we thought our set of dimensions would also appeal to the religious as they could be seen as an extension of the mind-body-soul trilogy into the everyday secular world, thus overcoming the confusing and thought-paralyzing alteration of Sunday and weekday models for a human being. In this extension the body becomes the physical dimension, and the spirit/soul complex the self-transcendent dimension, while the mind divides into intellect, values, and principle-using.

From these and other reflective exercises, we recovered from groups pursuing the optimal development goal the following set of major dimensions on which human beings were expected to develop. Here we also report some of the most common language that is employed in relation to each dimension.

**Physical dimension** This includes most obviously the body parts (e.g., head, torso, limbs) and their gross physical characteristics (e.g., height, mass, and colouring), and the five senses. Because the development of these characteristics is heavily determined by genetic factors, intervention efforts are primarily aimed at maintaining health. It also includes the operation of body parts in what are called *large muscle activities* (such as walking or pushing something), and *fine motor activities* (such as writing or using a tooth brush).

**Intellectual dimension** This is most often associated with thinking. In a more detailed analysis we distinguish between knowledge and skill. Intellectual skills can range from the very simple (e.g., matching items; putting items in order) to the very complex (e.g., solving problems; thinking critically). We can organize knowledge into facts, concepts and theories; recently, the idea of “the big picture”—a mental representation of the elements in an important process and their relationships—has come into our culture. Other terms commonly associated with
this dimension are problem solving, decision-making, critical thinking, schema, model, framework and conceptual scheme. A person often signals that she has activated the intellectual dimension by saying “I think that…”.

Values dimension  Early in life children show specific likes and dislikes, for example for food, people, activities and places. These later generalize into categories of things we call values—as when the liking of dogs, cats and songbirds generalizes into a positive valuing of pets. In this book values are thought of as things we commit our resources to seeking out, acquiring, maintaining or bringing to a higher state of being—because we anticipate that our enjoyment of them is of benefit to us and/or others. At the same time, we recall an unsuccessful attempt by school people some three decades ago to define the values concept unequivocally—in which some claimed that you can value something that you do not actively seek out, while others claimed that you can value things that you enjoy without believing that they are good for you.

Other values-linked terms are desires, wants, wishes, hopes and dreams. Our values usually appear as criteria for deciding between alternative courses of action. People often signal that this dimension has been activated by such sayings as “I really like…”, “I appreciate…”, or more directly “I value…”.

Principle-using (ethical) dimension  Principles are general rules that we use to tell us the right course of action when there is competition for our time and energy from different alternatives for pursuing valued outcomes. Principles may be expressed as relative weights we give to possible kinds of choices as, for example, when we adhere to the rule that our work life will not take time away from our family life (or vice-versa). Other terms related to this dimension are laws, justice, right/wrong, should/must, conscience, good/evil, ethical, fair and equitable. People
often signal that they have activated this dimension by saying, “I believe that one should…” Or, “It is only right that…”

**Spiritual (self-transcendence) dimension** When the authors were working on very early incarnations of this system, the word “spiritual” was taboo in community-wide projects because it was thought to mean, exclusively, “religious”. So we used the more inclusive term “self-transcendence” to mean the sense of connection we form with things more powerful and extensive than our own little lives—which could be a parent (for a child), family, community, movement, cause, universal principle or deity. This sense of connection rests on expectations of both serving (or being ruled by), and receiving help from, this larger/more powerful thing. In this volume, we will use the word spiritual to refer to a sense of connection to the two most comprehensive of these referents—universal principles and deity—both in some sense larger than humanity. Other self-transcendence-linked terms are all-powerful, eternal, everlasting, forever, almighty, God, Creator and mission. Sometimes the expression, “I believe in…” signals that this dimension has been activated.

**How Human Dimensions Are Linked**

Even though we talk about “holistic” development, we continue to attempt to stimulate, monitor and provide remediation for separate human dimensions. The futility of proceeding in this way is well illustrated in our treatment of human emotions. We often seem to believe that emotions are caused by events beyond our control, so we are their victims. The better account is that while external or internal events may cause spontaneous initial *feelings*, these are changed into emotions by the way our mind appraises these feelings. If someone tells you that you are “stupid”, you immediately experience bad feeling. But once you reflect that the person was upset and wanted to hurt you, the resulting
emotion is quite different—perhaps even something like sympathy for your attacker. The implication from this common life experience is that the ability to manage or “orchestrate” your emotions (i.e., emotional development) is very much dependent on your ability to think (i.e., our intellectual development). Of course this does not suggest that your ability to think will, by itself, always allow you to manage your emotions.

The relationship between our five major dimensions is not well understood. But even a child will say that his mind (“thinker”) is “inside” his head. This suggests that we intuitively order dimensions by their “depth”, or distance from the sensory boundary of life. We may, therefore, think of the dimensions as forming a progression of “deeper” layers of a human being—possibly developed progressively over our evolution from lower order species. The deeper the dimension we try to activate in ourselves or someone else, the harder it is to do it. Most adults seem to find it very difficult to say what principles they would apply to a current controversy.

We next ask what kinds of movements occur between dimensions as we engage the activities of our everyday lives. Again, our life experience reveals two common connections.

For one thing, we realize that inner dimensions can have an effect on outer dimensions that can best be described as “energizing” or “influencing”. As an “energizing” example, we put more mental and physical energy into doing things we like to do (value), or feel that we should do (in principle), than in doing things we don’t like or believe we shouldn’t do. Here principles and values energize thinking, which in turn energizes the physical actions we undertake.

As an “influencing” example, if we hold as a principle that we should help the poor, it would follow that we would value (be willing to give our time and resources) to that end, which would in turn cause us to learn about where the poor need help and
what we can do about it. Here a principle strongly influences what we value, which in turn influences what we learn about.

At the same time, because of our evolutionary development, a certain level of activation of a lower-level dimension appears to be necessary for a higher-level dimension to operate. For example, research has shown that if a person is locked in an isolation chamber where she can neither move nor receive external stimulation, there is soon a significant deterioration in the performance of “reasoning and complex problem solving”.

Similarly, a person who did not value anything could not have any need of principles to adjudicate conflicting urgings.

In light of the preceding, we can say that the dimensions form a “hierarchy”. An inner dimension exercises control over its more “outer” neighbour, yet that neighbour must be at least minimally activated for the inner dimension to function at its highest level.

Validation Of This Particular Set Of Dimensions

The authors have thought about several ways that our list of dimensions might be validated.

**Congruence with parental expectations for their children**

We could recall the expectations we had, as parents, for the development of our own children. Even before birth, the parent is concerned with the physical development of the fetus. During the first months after birth, we become concerned as well to see signs of intellectual functioning, as when the child pulls aside the newspaper behind which we have playfully hidden our face. Soon we become aware that the child has preferences—for example, preferring to play with the family pet than to be by himself—preferences which later mature into values. We are concerned with the rules that the preschool child seems to be using in his or her engagement of a sibling or pet—such as
“being nice” to them—because we interpret these rules as the beginning of ethical or principle-using behaviour. Moreover it is surely the hope of all parents that their children will find something to attach themselves to that is larger than their own lives—whether this is a family of their own, or a profession, or a cause, or a deep conviction.

**Ability to capture our expectations for peers**

For example, when we ask teenage girls what a boy would have to have for her to be interested in dating him, the first response mentions the physical dimension—he would have to be “hot” in the language of that age group. If the question, “Is that all?” brings no response, we ask, “Suppose Bill is hot but is really dumb. Would you date him?”— confidently expecting the response: “No! No! He has to be smart, well as smart as me”. The next, “Is that all?” probe asks, “Suppose Bill is handsome and smart, but all he cares about is himself. Will he do?”— expecting this time the response: “No, he has to care about me as much as himself”. This is a clear reference to Bill’s values. We have had success with this technique as early as grade six, using “what would a person have to have to be a friend” as the focus of our exchange.

**Compatibility with a personal mythology of human development**

If we are of a philosophical mind, we could speculate on what new dimension our species acquired at each stage of development as it moved forward from its primitive animal beginnings of a largely physical being governed by primitive drives and instinctive (wired-in) responses, to the present, complex multi-layered being. We might even create a mythology of human development in which there was in the distant beginning a potential for virtually unlimited development to be realized by the continuous execution of a PIDAS-like process. In such
a mythology each new dimension emerged to enhance the realized potential of the existing ones—as when the appearance of a calculating mind allowed primitive peoples, through the invention of weapons, to greatly enlarge the power of their bodies.

**Ability to subsume other valued dimensions of development**

When a community group begins to discuss kinds of desired human development, a wide range of potential dimensions is mentioned. It is important for the group to believe that in promoting growth in the dimensions in its model for a human being it is simultaneously promoting development in all other valued dimensions. This requires that there be a clear connection between activation of the dimension of interest and activation of the dimensions shown in the model. In the following paragraphs we discuss three dimensions that, at first glance, might seem to be outside the purview of our model.

**Emotional dimension** In our model, positive or negative feelings result from the activation of any individual dimension that is in a healthy or positive condition—as, for example, when we gently stretch a muscle, recall the meaning of a complex concept or think about someone we value. We can modify that initial feeling by thinking why we have it, as we described in our earlier example of being insulted—a process called “cognitive reappraisal”.

We can accumulate and intensify positive or negative emotions in another process that we call “positive outflow”. Given the direction in which dimensions energize and influence each other—from inner to outer—it is not surprising that the greatest satisfactions in life come from events in which this kind of movement occurs. For example, humans have the greatest sense of fulfilment when they have a cause; when commitment to the cause dominates all other promptings; when they expand
the domain of their positive valuations to include all those who share the cause; when they construct the big picture needed to bring it to fruition; when they acquire the skills necessary to implement the action plan that follows from this guiding scheme; when they put these skills to work, and finally, when they achieve a visible result. People who mount successful programs to give hope to people in developing countries, or who successfully act to save an endangered species, provide good contemporary examples of this phenomenon.

Some part of the huge positive emotion that this dramatic kind of outflow generates can be felt for years after simply by tracing out in memory the path from principle to successful action. Of course there can also be what might be called negative outflow. This occurs when our pursuit of a mission, goal or value for some reason does not lead to success and we feel frustration and disappointment. In our third world example, this happens when our effort to help is blocked by government corruption or the product of that effort (e.g., a health care facility) is destroyed by internal conflict. The severity of our negative emotions would depend upon how strongly we felt about the goal and how well we could cognitively reappraise the outcome.

Thus when we cause individual dimensions to grow, we simultaneously increase the availability and sophistication of our emotions. Teaching the skill of cognitive reappraisal simultaneously raises the ability to alter emotions. And developing the habit of positive outflow opens vast opportunities for the enhancement of our emotional lives. Thus stimulating the enhancement of model dimensions simultaneously promotes development in many important facets of emotional development.

Social dimension Talking about relationships is very common in human life and seems to be especially prevalent at the time this book is being written. Such discussions can be vastly clarified
and enriched if we represent the ideal two-person relationship as two fully functioning human beings in interaction. This representation suggests that a useful criterion for the quality of a relationship could be the depth from which it originates or the height it reaches. It also prompts and guides the search for mutual or reciprocal positive outflow, possibly the most intense and satisfying emotional experience available to most human beings. A fuller account of the potential contribution of CSHDE concepts to forming higher quality relationships is given later in this book.

**Aesthetic dimension** By definition, aesthetic experience has its origin in sensory perception. But our model suggests that this immediate sensory data can be processed or re-appraised from successively deeper levels, yielding dramatically different states of consciousness. But what seems almost self-evident from the model is considered sufficiently profound to warrant its own field of study called “iconography”.

In summary of this section, our ideas about of the types of, and relationships between dimensions are important to successful planned development situations. Let’s consider the case of our algebra teacher again. He first has to decide the dimensions in which he will endeavour to foster growth. With a limited objective, his effort could be successfully focused on the intellectual dimension, advancing the students’ skill and knowledge in algebra. Or growth in another dimensions could be attempted, such as the positive valuation of mathematics, or even the principle that we should try to use logical approaches where they are effective.

Then if he considered the direction of influence between dimensions, and in particular the phenomenon of positive outflow, he would try to start from some current interest or long-term goal of the student, thus engaging his full
consciousness in the ensuing attempt to teach a supporting math skill. In theory, the teacher’s formal lesson objectives are supposed to include knowledge and skill (two components of the intellectual dimension) and attitudes (a component of the valuing dimension) and teachers are themselves expected to model the kind of behaviour valued in our society. However, our society’s dismal record of “turning off” most high school math students shows the consequences of the predominant practice of barrelling ahead with a single minded focus on the intellectual dimension without first establishing mathematics as a valuable tool in achieving the real goals and interests of adolescent learners. A more detailed, real-life account of this avoidable disaster is given later in the chapter.

### Opportunistic Development Situations: What Additional Attributes Of A Human Being Need To Be Considered?

We are dealing in this section with the second type of “development situation” in which people come into contact and a person more mature than the others in some socially valued behaviour sees the situation as presenting a golden opportunity to promote growth in one or more of these others in respect to that behaviour. However the consciousness of the others is not at the point of engagement focused on that behaviour and the individual does not sense the need to grow in relation to it. The “others” may be just one person, such as a companion, friend, spouse or child, or it could be a number of friends or associates engaged in a group activity.

In light of the previous chapter section, the development opportunity is envisaged as an advancement on one or more of the five proposed dimensions of development. In all such cases, we will be effective to the extent that we understand what
elements are brought to play within a learner as the attempted enhancement of that dimension proceeds.

**The conscious Self**

Obviously, the learner has to be conscious to respond to development-intended instruction. So effective interventions will require some understanding of how human consciousness works.

We accept our consciousness as a self-evident fact, but in reality it is one of the great mysteries of life. Modern brain imaging has discovered correlations between certain states of consciousness and particular patterns of electrical activity in the brain, but as of today no-one claims to fully understand consciousness. Perhaps it will be proved some day that human consciousness is incapable of understanding itself.

However, one of the things we do know is that there is an agent (doer) associated with our consciousness that can activate the different dimensions “at will”. This agent can deliberately make our muscles contract. It can cause our minds to process information. It can bring representations of things we value up into consciousness. These are all instances of “will power”, an attribute of this agent who we call the Self.

The Self is the referent for both “I” (as in “I think that…”) and “me” (as in “you hurt me”), yet it cannot experience itself directly. One great psychologist said it is not only mysterious but also a bit terrifying that while the Self seems to disappear when we sleep, or are under a general anaesthetic; we have no idea where it goes.

We also know something about the experienced quality of our consciousness, especially its positive/negative feel. We are aware as well that it can be more or less focused, for example on the stimulation the teacher is bringing to bear to stimulate growth.
What is the Self’s “bottom line” intention?

Basically our Self wants our conscious moments to have as positive a feel as possible—i.e., we want to be as happy as we can be at every moment. Only people regarded as mentally ill want to be unhappy and some, paradoxically, some seem to get satisfaction from their unhappiness.

But emotional matters are more complicated than that, as hinted at in the understanding “short-term pain for long-term gain”. This means that, at least some of the time, we will do work we find unpleasant to achieve a valued goal (e.g., promotion). At other times, though, we may seek immediate gratification (e.g., when we are very hungry). Although there are great differences among people, delaying immediate gratification for a larger reward is a sign of maturity because it is a prerequisite for experiencing the most intensive kinds of “outflow”. At the same time, because immediate gratifications are more certain to occur than delayed ones (as in “a bird in the hand is worth two in the bush”), their potency in consciousness is not diminished by the probability of failure. For example, given equal degree of hunger the prospect of an imminent meal produces more good feeling than the promise of the same meal next week.

These considerations suggest that human beings have a two-part strategy for giving consciousness the most positive feel possible. First, we set goals for the longest planning interval in our lives that best match our deepest dimensions—our values, principles, and self-transcendent strivings—in this way maximizing the possibility for positive outflow during that period. Then within that interval we engage life tasks in a manner that best supports our goals. When a task is intrinsically unpleasant to us we think about how we will feel when our goal is achieved and, if the resulting positive affect overwhelms the negative feeling evoked by thought of engaging the task, we will proceed to engage it.
It is critically important that the teacher understands that the learner in an opportunistic development situation is at every moment trying to bring the best possible feel to his consciousness. It may well be that the learner is getting his good feeling at the point of the teacher’s intervention by the performance of a self-preferred task, or by thinking of the pleasures of some other time and place. How to motivate the learner to give his full consciousness to the personal actions required in the teacher’s development attempt is a central skill of the teaching/developing art.

By what strategy is this intention to maximize good feeling in task engagement pursued?

In our conceptual scheme, mature individuals, organizations and whole communities have a capacity to address tasks that we call Intelligent Self-Direction (ISD). In this process:

1. We have a goal, an intention to perform some set of actions (in a way that we get the most positive affect from doing it).
2. We make a plan for achieving this goal.
3. We then start to carry out (implement) the plan.
4. As implementation proceeds, we stay aware of how things are going, and change our plan accordingly.
5. Once implementation is complete, we think about (reflect on) how well our goal was realized, and how we would change our approach next time the intent is activated.

ISD can be enacted over time intervals that vary greatly in scope, from the next few minutes to a significant stage of our lives. To maximize good feeling, the Self seeks to have the enactment of ISD trigger and support positive outflow. This will happen to the extent that the intent is prompted by or is consistent with the content of our deepest or self-transcendent dimension and the
plan incorporates our principles and values into the process we intend to follow.

This is not to suggest that all the elements of intelligent self-direction are reflected in our habitual behaviour. Much of the time we act without conscious purpose, most of the time we lack a coherent plan for engaging the longer periods of life, and we rarely reflect on our experience to salvage some lessons for the future. Yet, at our best, we can pursue goals over long periods of our lives that spring from our largest self-transcendences, and our strongest-held principles and values.

**To what targets does the Self pursue the ISD strategy?**

Because we are by necessity self-centred, our engagement of life moves outward progressively from ourselves to those life focuses in which tasks must be engaged if we are to advance individually or collectively. This means that the Self applies the ISD strategy in the engagement of:

1. Our own self (the dimensions themselves);
2. Others, working out from intimate others to people at greater and greater distance from ourselves physically and psychologically;
3. The work we do, usually in the community, for the common benefit;
4. Nature, other living things in the immediate or remote environment.

In summary of this section, our success in our development intentions in opportunistic situations requires us to engage the person as a conscious self-directed being with long-term goals that can be generated from self-transcendent strivings and derivative principles and values. It is understanding of how these elements exist and are at work in the person we are in contact with that will suggest that a certain situation presents a “golden opportunity” to foster a particular type of development. That means that the specific increment of intended growth will
be immediately seen by the learner to contribute to his better achievement of a long-term goal, so that he will focus his consciousness on absorbing the impact of the actions we take.

Long-Term Intimate Relationships: Adding An Internal Consciousness-Orchestrating Mechanism (ICOM) To Our Conception Of A Human Being

We have come to the third development-supporting situation that we associate with long-term, intimate relationships. Reflection suggests that there is some internal mechanism that, projecting itself constantly into our consciousness, gives consistency to what we do with our lived days. This internal thing determines what priority and effort we give to the tasks that we could address at any time, and the depth of our being (dimensions) we will bring to each. To extend a metaphor we have applied elsewhere, this internal entity “orchestrates” our conscious life. In a poetic metaphor it is what can be given to a beloved, and in a religious metaphor it is what we surrender to God. In secular accounts the soul is what gives a person or an organization its distinctive character. We may also say that it determines who we really are as a human being. In a society increasingly dominated by secularism, the word “soul” still has overtly religious connotations, although the ICOM performs many of its functions. Perhaps the religious could entertain the idea of a life-limited ICOM operating with a more comprehensive soul that lives eternally.

The influence that two such internal mechanisms have on each other in long-term relationships is subtle and at best marginally understood. According to Moore, the soul revels in and grows from the details of everyday living, so each new episode of a positive relationship should expand
each soul involved in the relationship in a similar way. And a contemporary researcher in the marvellous growth potential of brains, suggests that the way we engage life tasks is reflected in the connections built between brain cells, so that each partner in a long-term relationship may to some degree sculpt the other’s brain—the essential physical underpinning of consciousness and the ICOM.

Over time two consciousness-orchestrating internal mechanisms form a stable pattern of interacting that constitutes the sense and scope of “we” in a relationship. This can consume a small part of each partner’s life, or most of it, depending on the number of dimensions in which there can be intimate interaction and the number of life contexts in which such interaction can take place. As mysterious as it may be, this potentially most important and pervasive of growth stimulators has to be sought out and engaged if helping each other become our “deepest and truest selves” is the ultimate goal. Some of the strategies that have been proposed are extensive sharing of life narratives, sensitive listening for what are the truly transcendental forces in your partner’s life, and a desire to nurture comprehensive growth.

Assembling Our Visual Model For A Fully-Developing Human Being

The Varieties Of “Model” Language

From the very beginning we need to be as precise as possible in our “model” language—because usage is variable and conceptually slippery. For us, a “model X” (e.g., a model airplane) is a replica, whose parts are constructed to scale. On the other hand, a “model of” is a representation that displays
to an exceptional degree the attributes of a class of things of interest to us—as when someone is described as a “model citizen”. A “model for”, the term we use primarily in this book, is a representation of the essential components of the class of things of interest to us—a simplification that leaves out what is not critical in understanding how this class of things works. A model for can be drawn on paper, in which case we would call it a “visual model”. Or it may just be held in the mind, in which case, sensibly, it would be called a “mental model”.

### Why Models For Human Functioning Are Important

At first hearing, the idea that we need to make a model for a human being sounds much too “theoretical”, particularly to the people who want immediately to take some practical action to support someone’s development. This perception is mistaken for at least two reasons. To start, the truth is that everyone already has a view, however explicitly conceived, of how a human being “works” that they bring into their interactions with others. Because such personal models are seldom critically examined, they remain fragmentary, ineffectual and as often impediments as they are benefits to individual and group effort.

Second, in previous sections we have shown that our effort to foster development in a succession of increasingly complex life circumstances requires that we engage an increasing number of hypothesized components of a human being. We can easily understand from our life experience the importance of putting these components together in a model for—at least insofar as mechanical and technological devices are concerned. Most of us have at best an inadequate idea of how our refrigerator, TV, washing machine, electrical system or plumbing works—that is, of how their various parts interact to carry out whatever process we use them for. We know how to operate them, which means we have a procedure that gets them to do what they are designed
to do. So we can make use of these devices only as long as they are functioning properly. But if they malfunction we haven’t the slightest idea how to make them work again. And the idea that in some cases we might, by some adjustment or addition to the system, even upgrade a process and make it work better, is beyond the realm of possibility for us. Only a person who services these systems, a person who has the “big picture” of how they work, (i.e., a model for the process they carry out) can make these adjustments and improvements.

Although human beings are immeasurably more complex than refrigerators, essentially the same argument can be made about their workings. The impact of our engagement with people will be proportional to our understanding of how they “work”—that is, of the sophistication of our mental or visual model of the parts activated in our engagement and the working relationships among these parts.

Over the past quarter century the authors have periodically attempted to draw a visual representation of the dominant elements of human beings that they felt needed paying attention to in their development-supporting projects. We had found that these visual diagrams received enthusiastic response from practitioners, possibly because they provided an easily remembered visual summary of a number of concepts and statements of relationship. Here we report on three of these models that received particularly positive comment from front-line development workers.

Figure 2.1 appeared in 1989, the product of a group of education professors, senior education administrators and curriculum officers working in a project entitled ‘Empowering Students As Learners’. It is built around the concept of intelligent self-direction (right-hand sequence), and makes the distinction between ‘reflection in action’ and ‘reflection on action’ that Schon popularized at that time. It envisages a Self drawing upon many internal personal attributes.
Figure 2.2 was constructed in conjunction with the Best Start program, which was initiated in Ontario in 1995 to stimulate the fullest possible development of young children. Consequently the focus moved to the dimensions of intended development—and these were represented by nested cylinders that portrayed a series of dimensions as being located both progressively ‘deeper’ and ‘higher’ in the individual. Intelligent self-direction is retained as a function of the Self. This model was enthusiastically received, in some cases even ‘adopted’, by

**FIGURE 2.1:** A model for the self-directed learner. (Source: “Minutes of a meeting of the Project Working Committee of Empowering Students as Learners, Feb. 23, 1989”, East Parry Sound Board of Education, South River, ON.)
regional groups representing a very wide range of community development agencies.

Figure 2.2 is intended to convey the idea that people are fully functioning to the extent that they can generate positive affect for themselves, within the normal range of variations in life circumstances, by:

1. Setting positive (development-supporting) goals, which include but transcend their own interests, in relation to the inescapable life focuses;
2. Subordinating immediate desires and impulses to the achievement of these goals;
3. Constructing reality-based plans that are sufficiently sophisticated to accomplish them;
4. Performing competently the subordinate skills required to execute the plan;
5. Experiencing the sustained satisfaction that comes from its successful execution.

Thus the person portrayed in this model initiates action from the deepest dimension that is possible to activate in a situation, and enjoys the positive emotional effects of the successive activation of more external levels (positive outflow).

We thought of several plausible names that we could give this model. Given the dominant thrust of CSHDE, the title A Model For The Optimally Developed Human Being seemed appropriate, and later in this chapter, we explain why the term A Model For A Mentally Healthy Person would also be appropriate. However, during the writing of the first published account of this system, we were looking for a more comprehensive name and came upon the phrase “the fully functioning person”—a term proposed by Rogers\textsuperscript{10} and applauded by Maslow.\textsuperscript{11} Impressed by this seemingly holistic phrase and its prestigious endorsement we adopted the term “A Fully Functioning Human Being” as the name for our model.

These previously mentioned names are all what we called “product” definitions in Chapter 1, conveying what the person would be like in maturity. However, we believe that in the long run, when the popularity of the expression “optimal development” has subsided, and what we want to convey is the individual en route to the achievement of his full potential, the process term “A Model for A Fully Developing Human Being” may become the most appropriate term.

It seems sensible that a person who acted according to this model during his formative years would in maturity possess the qualities attributed to the optimally developed person in Chapter 1. So we may think of these two conceptions to be related as means (“fully functioning”) to an end (“optimally developed”).

Figure 2.3 is the latest effort to construct a model. A first intent was to give it a distinctly human appearance, replacing
FIGURE 2.3 A Model For A Complete Person.
the volcano-like structure of Fig. 2.2. As for its elements, we can logically assemble this version of the model by cumulating the human elements we have to deal with as we move through each of the three development situations in real life described at the beginning of this chapter. The most important newly-added element beyond what is in Fig. 2.2 is what we call “The Internal Consciousness Orchestrating Mechanism” (ICOM) and we placed it at the very centre of our most recent model for a human being. We have previously described it as having a soul-like function and leave it to religious readers to speculate on how this essentially secular notion could relate to their own understanding of the soul.

Our current model also suggests the possibility of a human being retrieving energy from outside himself, something evidently believed possible, for example, by the multitude of *The Celestine Prophecy* enthusiasts.\(^{12}\)

We sensed a need to give Fig. 2.3 a distinctive name that suggested something even more comprehensive than “fully functioning”. Because we felt that the possession of a soul function and the ability to retrieve energy would make someone a complete person in some important sense, we have used that term for our current model. However we would expect and encourage any group developing its own model to use names its members are most comfortable with.

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**The Power Of An Explicit Model For A Complete Person**

We claim that a model for a human being is a prerequisite for any group hoping to optimize human development. This was to some degree substantiated by showing that stimulating growth effectively in increasingly more complex situations requires commensurate enlargements of the workings of a human being.
This claim can be further documented by describing essential tasks that are poorly performed without it. In the paragraphs that follow we will deal with its value in helping us to: (i) construct operational (process) definitions for terms associated with human development; (ii) use input from emerging ideas for human betterment to progressively enlarge our existing scheme for fostering optimal development; and (iii) combat the tendency to dehumanise others.

**Constructing Operational (Process) Definitions For Development-Linked Terms**

We have practical rather than academic reasons for trying to give meaningful definition to the key terms in a conceptual system. The first and more obvious one is that we are not likely to get far in a discussion that slithers and slides from term to term without any sense of the changes in meaning that are occurring.

The second is that if the terms name qualities to be developed, we want to plot growth paths for these qualities and to do that we will need to give the term/dimension a *process* definition.

Thus an effective procedure for defining human characteristics is to describe the process inherent in the characteristic as a particular illustration of the model in operation. We consider three examples, in order of difficulty:

*Character* Something called “character education” has appeared recently, reviving a term that was prominent a generation or so ago. Consistent with our process approach to definitions, we should resist the tendency to begin our definition with “Character is…” and set up a process definition that begins, “A person shows character when they… (do what?)”.

To get beyond this point, we envisage the person who is showing character in action, and ask, “From what dimension does
he initiate his actions?” Without much thought, it occurs that the starting point must be at least as “deep” as the values levels, and could possibly reach down to the individual’s principles—and, moreover that these values and principles support the common good rather than being exclusively self-serving. So having activated a principle, value or self-transcendent entity, what does the person of character do? Well, he applies them assiduously to the contexts of his life, whatever the temptation to ease up on them. This summarizes into the definition that, “A person has character to the extent that she consistently brings values and principles that support the common good to bear on all life focuses”.

**Courage** This is another desirable human quality that is finding its way into programs aimed particularly at youth. When we do a process definition, we see the person again initiating action from a deep (values/principles) level, and following through in the face of risk of injury to some level of his being. A first definition would read: “A person has courage to the extent that he follows through on a principles-initiated action in the face of personal danger”.

But in our conceptual system a competing and likely superordinate principle would be that life must be valued—that is, not thrown away for trifling benefits. So our modified definition must be that, “A person has courage to the extent that he endures manageable or reasonable risks in pursuit of a principled action”. On this definition it would be troubling to use the term “courageous” to describe the actions of a soldier who, in a patriotic fervour, charged the enemy’s machine gun and thus into certain death.

**Mental health** The concept of the fully functioning human being provides a process description of *mental health*—an important current health issue—that subsumes a variety of definitions of
specialists. For example, at an international workshop in 1996 held by the Centre for Health Promotion, University of Toronto, and the Mental Health Promotion Unit, Health Canada, mental health was defined as “the capacity of each of us to feel, think, and act in ways that enhance our ability to enjoy life and deal with the challenges we face”\textsuperscript{13}. CSHDE’s fully functioning human, as defined in the earlier section on the assembling of that model, would surely be thought to have good mental health by any sensible understanding of that term. But this model gives us much more detail on the components (focuses) of “life” to be enjoyed, and delves much more deeply into the process of enjoying (experiencing positive outflow).

Our Model For A Complete Person also allows us to think more comprehensively about mental illness and its treatment, now understood by most social planning groups in terms of crude analogies with physical illness. Mental illness, also a relative term, can be usefully defined as a failure in one or more of the previously defined components of the fully functioning process, and becomes more acute as these failures increase in number and/or severity.

One highly regarded treatment for mental illness is called “psychosocial rehabilitation”, which “encourages the adoption of healthy societal roles and building meaningful relationships with others in the community”\textsuperscript{14}. Study of the techniques advocated for doing this reveals that they feature the skills required to engage more effectively the inescapable focuses of everyday life. In light of the foregoing sections, it can no longer be considered helpful to attempt to divorce mental health and mental illness considerations from more comprehensive models of human functioning in everyday life situations.
Using Input From Emerging Ideas For Human Betterment To Progressively Enlarge Our Existing Scheme For Fostering Optimal Development

Frontline practitioners receive a steady flow of schemes for improving their practice, each based on a particular conception of human beings and the underpinnings of their behaviour. During the forty-year period in which CSHDE was evolving, no less than fifty ideas for improving public education came forward. Some of the more memorable of these were: educational television, programmed instruction, family grouping of students, open education, computer learning, integrated curriculum, peer coaching, holistic education, language across the disciplines, the initial teaching alphabet, the Cuisenaire method, cooperative learning, and character education. They were each ushered in with expectation of great gains in student development, but when this didn't happen they were rapidly abandoned, leaving little or no conceptual residue in the practitioner’s mind and practice. The useful idea about the workings of the human psyche inherent in each was rapidly forgotten.

The contrasting approach is to build our personal conceptual scheme cumulatively. We do this by matching the concepts contained in a new proposal for human advancement with elements of our conceptual system (CSHDE), and, where no match can be found, adding something to the latter. As an example of how this works, we were recently directed to Saul’s book *A Fair Country* as a source of information about Aboriginal values. Three values prominently mentioned there were inclusiveness, diversity, and tolerance for complexity—which were treated separately rather than forming a connected set. A fourth idea was that these values are exercised within an ever-expanding circle of contacts with other people.

The question, then, is how these ideas relate to CSHDE. Intuitively, they seem to have something in common with PIDAS—which is not surprising given that both refer to basic
notions of how the world should advance. Following up on this premonition, “inclusion” certainly suggests the coming together part of PIDAS, and “complexity” suggests a quality of the product of that coming together. But “diversity” adds the idea that the potential strength of the product of coming together will be proportionate to the strength of the separate constituents, even though the act needed to synthesize strengths will be greater. And the expanding circle suggests that the enactment of PIDAS might well involve bringing together things at greater and greater physical or psychological distance from each other. Clearly there is some suggestion here of a possible reformulation of PIDAS.

Combating The Tendency To Dehumanise Others

We dehumanise others when we treat them as something less than the fully functioning human beings they are capable of becoming. This takes different forms—with very different consequences.

Ironically, a variant of dehumanizing, perhaps better described as “under-humanizing”, begins very early in life in our powerful urge to protect the young. We begin by imagining that they are incapable of acting as intelligently self-directed beings. We want to do so much for them that we fail to do enough with them, and almost fail entirely to get them to do for themselves as quickly as possible. Thus acts of love can dehumanise, even as they draw us closer to children.

A later-occurring form of dehumanizing happens when the child is observed to have some kind of “deficit”, a physical disfigurement, a well-known “syndrome”, or a slowness in learning. We have trouble imagining people with such deficiencies in full engagement with “normal” people, and our reaction is to recoil, to retreat from them.

But the worst sort of dehumanizing is yet to be described. It stems from our human tendency to blame others’ actions for our
misfortunes, then attribute these actions to their bad motives—that is to say, to their pursuit of self-favouring, unprincipled behaviour. This justifies our defending ourselves against them, even to the point that “attack is the best defence”. Whole races have, by this process, been called “apes”, “rats”, “subhuman” and even “sticks” and in this way become the objects of genocide, slavery, or cruel repression.

The antidote to dehumanizing, if indeed one exists, will have two parts. The first will be to see past the external features that distinguish individuals. We need to imagine the person who has come to our attention as a fully functioning human being who, in her mind, is seeking positive affect by pursuing some course of action in which she feels justified (i.e., is principled). We need to practice attributing potentially positive motives to all people, but especially those who annoy us. This habitual act will perform an immediate cognitive reappraisal on that annoyance, lessen its intensity, and perhaps even turn our feeling positive.

The second aspect of the antidote must be to stop attributing blame for our bad circumstance or feeling to the preceding actions of others. Such attribution of blame usually reflects immaturity in causal reasoning. This proceeds as follows: (i) I am presently unhappy or in distress; (ii) Yesterday the neighbour’s actions toward me were out of the ordinary, so (iii) It follows that the neighbour’s action is the most likely cause of my unhappiness.

To overcome this, we must again practice seeking out other plausible causes, especially those that lie within our own past behaviour. The good sense of this approach is found in a form of psychiatric treatment known as “rational cognitive therapy”.

We add real-life content to this section with a personal story in which dehumanization of learners was actually thought of as principled behaviour. As a high school teacher of mathematics, one of the authors was hired to teach the knowledge and skills dictated by the Ministry of Education guidelines for the
intermediate and senior divisions. The following is his own account:

“I was evidently judged a good teacher, reaching the top of a seven point rating scale by my second year.

“I taught in a rural community, where less than one in four high school entrants actually graduated. Most male ‘dropouts’ became farmers, labourers or acquired a trade through formal or informal apprenticeship. Most female dropouts took on unskilled jobs in the community or at home to tide them over until marriage. A relatively few boys and girls attended normal schools and became elementary school teachers. A tiny proportion went on to university and a professional life.

“It was to this group of learners that I was to teach such things as how to solve a quadratic equation, how to prove such things as that ‘line AB bisects line CD’ in a geometric figure, and how to simplify expressions involving the square roots of numbers (suggestively called ‘surds’). This, in retrospect, was a purely cognitive exercise, having nothing to contribute to what these students truly valued, to any principle they might try to live by or to any self-transcendent cause they might want to pursue. Indeed, it would have required a considerable piece of creative thinking to invent a curriculum that was less relevant to fostering the fullest possible development of these students as human beings.

“I am particularly troubled by my recollections of Class 10B, those students who were just waiting out the time when the government kids-at-school grant to parents ran out. My two sessions a week with them were pure agony, with both teacher and students totally aware that this was a complete waste of their time.

“Could I have done better? Well, if I had had the hierarchy of dimensions in mind I would have at least recognized that I was in a conflict of personal values—between being a ‘good’ teacher doing his best to cover the algebra guideline on the one hand, and
my valuation of my students’ time and personal advancement on the other. The principle that I might have invoked to determine which would have first priority could have been doing the most good for the most people. And if I had been mature enough, in an act of self-transcendence, I would have tried to develop a mathematics curriculum for these students that made the greatest contribution to their personal development.

“To do this I would have had to shift my mind from the arranged to the opportunistic mode of development situations, imagining an encounter with these students after they left my classroom and took up the real occupations of life. These school leavers would be immediately thrown into the world of personal finance. With practically no useful skill in managing money, which is based centrally on the ability to calculate money movements, they would make many simplistic financial decisions that impacted negatively on their lives. Replacing academic algebra with financial planning would seem a near perfect example of an opportunistic development situation.”

**Needed Further Development Of The Model For A Complete Person**

We understand that our current model is most realistically thought of as a first approximation of what could ultimately emerge if and as it progressively incorporates insights from the great variety of perspectives that could contribute to the optimal development of human beings. Here we will comment briefly on some of the incorporations the authors think to be particularly important.

One priority for us arises from present heightened concern about incidents that reveal human behaviour that differs dramatically from our model. Mass murders, fiendish torture, stoning of disbelievers, slaughter of whole classes of
schoolchildren and public beheadings of people not involved in ongoing political events (‘innocents’) have almost become daily occurrences in our world.

More generally, honest examination of everyday, common interaction reveals a surprising amount of unnecessary hurt in every dimension in all human relationships. These observations have suggested that anti-nurturant forces are part of the human constitution, whether inborn and spontaneous or easily aroused. They have even prompted some to suggest that the human being’s natural tendency to love and come into mutually nurturant relationships (as reflected by PIDAS) is balanced by another tendency to hurt and destroy for no apparent reason than the pleasure got from doing so.

Dealing with this reality seems to us to require the incorporation into a Model For A Complete Person of the hypothesized unconscious urges and mechanisms—negative as well as positive—that are capable of projecting themselves into human consciousness and impacting on human behaviour. The model at present—without any identified impulses to hurtful behaviour—will seem too idealistic to many, failing to account for the dark side or ‘shadow’ that all human beings reveal. Complete ‘orchestration’ of the affective tone of consciousness will not be possible until unwanted negative urges are acknowledged and brought under control, or at least overwhelmed by positive ones.

Our hypothesis is that these positive and negative elements of unconscious life will ultimately be subordinated to a greatly expanded conception of the mysterious, central mechanism that governs the way we live our lives. We have made a start in identifying what we call an ‘Internal Consciousness Orchestrating Mechanism’, and think of it of it as a component of what many call the ‘soul’. It seems clear that ICOM must as well be linked to PIDAS, a representation of which must also be embedded in the human subconscious. Thought-out derivatives of these must be
other internal things such as intuition and conscience, taken to be real entities in both religious and secular life.

Taking the model to the next level of analysis will plausibly allow a much-needed reconciliation of secular and religious perspectives on desirable human development. Religious people with strong developmental convictions will want to reconcile the working conception of a human being that is brought to bear on their day-to-day development efforts with the model employed in their religious instruction on Sunday. For at least two thousand years, Christian writing has spoken of man as having a body, mind, heart and soul and/or spirit. Body and mind are fully recognized in our model but heart, soul and spirit will remain problematic until they are given detailed representation in the model.

In this deeper analysis we will also want to deal with the wide and apparently growing conviction that human beings can summon energy into their consciousness from a vast cosmic pool, and from the earth and other living things, use it to activate the human being’s vital parts, and then project it outward in acts that benefit other people and/or nature. Interestingly, modern theories about the infinitesimal size and ubiquitous presence of the smallest physical energy particles puts us in mind of the many theorists and philosophers who believe that human beings are permeated by energies emanating from a source outside ourselves.

To this point we have thought of human advancement in terms of developable human “dimensions”. As suggested previously, we believe that a more advanced model that deals with negative as well as positive behaviour, should treat more extensively potential inputs into consciousness. At that point it would seem useful to give a name to the distinctive conscious state that arises when a dimension is activated, and we call it a “level of being”—“level” being used because of the hierarchical ordering of the dimensions. We assume that the emotion aroused
when a dimension is activated will be positive if the dimension is in good health. For example, tensing a healthy muscle, recalling a definition, making contact with something valued or seeing oneself as acting on principle all produce positive affect, but of distinctively different kinds. We also believe that these good feelings can be cumulated to some degree in a process called positive outflow, offering a vehicle for the largest good feeling that human beings are capable of.

We continue to explore these ideas and others and are confident that any future re-publication of A Complete Person will show significant progress toward their incorporation into an expanded, and possibly renamed, model.
IDEAS TO REMEMBER FROM THIS CHAPTER

1. Life presents three major development-promoting situations. In planned development situations a learner comes to a teacher with the intention of growing in some way. In opportunistic development situations, a more mature person seizes the opportunity to advance the development of a less mature person who has not solicited that input. In the long-term, intimate relationship, there is a development-promoting interaction of the internal mechanisms that directs the way we live our lives.

2. The most effective efforts at promoting development occur when both the ‘teacher’ and the learner have an advanced conception of the elements/dimensions of a human being. These elements presently identified have been synthesized into a graphic that the authors have named A Model For A Complete Person.

3. Keeping this picture in memory is important because it conveys the essential idea of a fully functioning human being: an intelligently self-directed being seeking positive outflow by engaging life focuses from his or her deepest levels (dimensions). From this visual image we can retrieve these important components:
   i. A set of dimensions, ordered hierarchically (upward and inward), from physical, intellectual, valuing, principle-using and self-transcending;
   ii. A Self, a mysterious but very real agent that can call these dimensions into action, ideally from the deepest levels outward;
   iii. The intelligently self-directed process of engagement—goal setting, planning, implementing the plan, and reflection on completed action—by which the Self
pursues its bottom line of maximizing good feeling in consciousness;

iv. The essential life contexts or objects of this engagement: personal self; other individuals at increasing “distance”, Nature, and the work (services) performed for the general benefit;

v. An internal mechanism that determines from moment-to-moment the choices an individual makes about what dimensions of his being he will bring to bear, at what level of sophistication, in what contexts.

4. The model presented in this chapter helps us deal with such critical tasks in fostering human development as: providing operational definitions of terms related to these dimensions; ensuring coverage of all important dimensions of development; and retrieving development upgrading ideas from other conceptual schemes and using them to continually upgrade our understanding of human development.

5. If we could, as a practiced habit, lay A Model For A Complete Person on all our transactions with other human beings, we would see them as positive-affect-seeking entities that work from their own values, principles and self-transcendent beliefs. Seeing people “from the inside out” will preclude the dehumanizing temptation to judge them from their most visible, external dimensions and to work backwards from what displeases us in this external presentation to a hypothetical deficient inner core.
CHAPTER 3

THE INTERVENTIONS NEEDED TO REALIZE A HUMAN BEING’S FULLEST POSSIBLE DEVELOPMENT

THIS BOOK DESCRIBES a conceptual scheme for fostering the fullest possible development of a human being. It begins, in Chapter 1, by clarifying the meanings to be attached to key, development-linked terms. This was thought necessary if we are to avoid a progressive drift into semantic chaos and the accompanying inability to formulate meaningful propositions. Without some effort at definition, subsequent discourse will make little progress.

In Chapter 2 we identify the nature and relationship of five major dimensions in which it is hypothesized that an individual’s development can be planned, stimulated and tracked. It identifies the elements that are activated within the individual when these dimensions are brought into play in engaging life tasks. These elements are then put together in a Model For A Complete Person. This effort at model building was motivated
by the assumption that our success in promoting growth in an individual will be proportional to the sophistication of our understanding of his behaviour.

The present chapter addresses the next prerequisite for promoting optimal development: determining the total set of actions to be taken in respect to an individual to achieve his fullest possible development. It first retrieves from the common experience in nurturing young children a continuum of actions for fostering physical development. It then illustrates that these actions are plausibly applied to the other dimensions of development. This suggests the utility of a two-dimensional chart that illustrates what we call the Optimal Development Nurturance Domain (ODND). Next, a generic strategy is described for moving through this domain as we nurture an individual or group. We conclude the chapter by demonstrating how use of the ODND and its associated strategy can help us better understand and take more effective action in many initiatives for human advancement.

**Generating The Domain Of Actions Required To Foster Optimal Development**

What we are trying to determine is the complete set of nurturant (development-supporting) actions that would have to be undertaken in regard to an individual to promote his optimal development as a human being. We call this the Optimal Development Nurturance Domain (ODND). This uses a minor but useful extension of the common meaning of “domain” as a territory over which control is exercised.
The Sequence Of Actions Required To Foster Physical Development

In regard to the physical dimension, we can retrieve needed development-supporting action from observing what a thoughtful mother does to nurture her child's physical being. Immediately following the birth of her baby, she is focused on keeping him warm and shielded from any possible hurt. Within hours, she acts to meet his need for sustenance. A rash, elevated temperature or any other sign of potential illness is dealt with immediately. Within the first year the development-oriented mother will begin to teach the child to participate in such needs-satisfying actions as putting on clothing or washing his hands after using the toilet.

Some mothers go beyond that, apparently understanding intuitively that optimal physical development will require the child to take over, and expand, the nurturance actions that have been performed on him. In other words, an individual cannot rely on other people to teach him all his life, and so will have to become his own teacher. To do this, he will have to progressively modify the mental schemes and strategies that govern his actions as life circumstances change.

The sequence of actions needed to foster optimal physical development that are suggested by this example may be described by their intended impacts on the recipient as follows: protecting him from development-impeding hurt; meeting his basic sustenance needs; facilitating his recovery from illness and injury; fostering, through teaching, the acquisition and enlargement of the processes in which his physical dimension is involved and, empowering him to adapt these processes as life circumstances change. We discern the same sequence if we consider other examples of physical activity such as getting dressed, feeding oneself, exercising the body or playing a sport.

A simple yet particularly important example of the child's need to upgrade a taught procedure occurs in hand washing.
In this case, a technique is learned in the family bathroom, a place in which family members have acquired a degree of immunity to each other’s germs. Here the unavoidable mild contamination of toilet seats, taps, towels and entry doors can be ignored. However the home bathroom technique will have to be modified in school, restaurant and service station washrooms where the newly-encountered bacteria and viruses that come from touching these common bathroom components could have negative health consequences.

**Application To Other Dimensions Of Development**

To define the total set of required nurturant actions, i.e., the Optimal Development Nurturance Domain (ODND), we have to determine what needs to be done to promote the fullest possible development of the other human dimensions as well. A logical starting point would be to determine the extent to which the sequence already identified would apply to these dimensions. We work inward and upward through them.

**Intellectual dimension**

The young certainly need to be protected from false information (e.g., the claim that the Holocaust never happened) and discredited theories (e.g., that there is one superior race).

The intellect’s development certainly has needs, especially engagement with, and acquisition of, a rich array of concepts and information processing strategies.

Faulty information processing strategies can be considered a form of intellectual ill health, and are treated accordingly.

As for fostering intellectual development through teaching, human societies have deliberately established an institution (the school) whose main purpose is to develop intellectual processes through a teaching/learning process. And in authentic
mentoring, an individual is taught how to independently continue the progressive expansion of his existing mental schemes and processes.

Thus the sequence of actions for stimulating development in the physical dimension appears to apply to the intellectual level as well.

**Valuing dimension**

It seems sensible to say that an individual’s existing values can be hurt, violated, or undermined and, therefore, that they need protection. A widely advertised example today of failure to protect would be the systematic belittling of an individual’s religious beliefs. A parent’s prohibiting contact with animals would, for a child who likes and learns from them, constitute a hurt to values.

A basic need in the acquisition and expansion of an individual’s values has been assumed to be exposure to things that society wants valued—but in circumstances that give him positive affect and thus generate the desire to return to them. For example, it turns out that just exposing children to culturally valued products—such as the Shakespeare plays we were required to study in school—doesn’t necessarily lead to their being sought out (valued) in later life. The tragic failure in Shakespeare’s case can be attributed to the generally negative emotions associated with their study that were generated by an inadequate teaching strategy.

Though moving now toward metaphor, it is not uncommon to say that a person’s values are “sick”, meaning roughly that they are beneath what is expected of a fully developed human being. The hint or implication is that they should be broadened or uplifted.

It is commonly believed that an individual’s values are inculcated through a form of teaching called modelling. And it seems a worthwhile objective that we teach each new generation
how to continually expand the scope of its positive valuations, especially seeking out for enjoyment those things that support human advancement. This would be an important act of empowerment.

Once again we can say that the sequence of actions for optimal physical development continues to hold up, this time in the values dimension.

**Principle-using dimension**

Mention of principles by name is not frequent in everyday encounters, limited to occasionally saying of some plan suggested by others, “That would be against my (unspecified) principles”. When we think about it though, most of the remarks made about the values dimension hold as well for the principle-using dimension. Thus, a person’s principles may be undermined, violated or vitiated—as when she is forced to act in a manner that is inconsistent with them. Principles need the opportunity to be used if they are to survive. A person can be said to be acting “unconscionably”, meaning that the principles he is applying to the matter in question are in some way unhealthy or self-favouring. And principles are thought to be teachable, for example by modelling and internalization of religious prescription—the latter represented, for example, by study of the Ten Commandments in Sunday School.

We can’t cite an example in which an individual has been deliberately taught how to periodically upgrade or reprioritize his principles to reflect a growing understanding of the requirements of human advancement. Yet this does seem to be within the realm of human capability in that, for example, over our lives we can and do expand the range of people for whom we feel (in principle) an obligation to help.

So the described sequence of nurturant actions is still holding in the principle-using dimension.
**Spiritual dimension**

Over the period in which CSHDE was being developed, the word “spiritual” was almost universally equated with “religious” and could not be entered into public discussions of human development. Indeed in our earliest version of our model for a fully functioning human being, the deepest or highest level was called “self transcendent”. So there is not much relevant experience from which to draw examples of intended nurturance. But given the recent broader definition of spiritual, it is now possible to talk freely of spiritual development.

We need to recall here what this broader definition has come to mean. In its most common expression, “spiritual” refers to a sense of beneficial connection to something that is more powerful and enduring than oneself and one’s experienced life. This can change over our lives from a parent, to the family, profession, a social philosophy or cause and, finally, to a universal law or divine being.

As with values and principles, an individual's spiritual dimension can be attacked, undermined, and diminished at every level in this just-mentioned hierarchy of self-transcendences. Past efforts to obliterate native children's family connections and spiritual beliefs in residential schools has become a Canadian national scandal. And today environmentalists who hold nature to be a self-transcendent reality are often publically chastised as enemies of the national good by those who measure human advancement by the size of the GNP.

As for meeting spiritual needs, this was thought to be a parental concern dealt with by children's involvement in their parents' religious observances. As one religious group put it, “faith is caught, not taught”.

There are certainly people in our world today who, while claiming to be working from religious principles, carry out actions that are thought to be “perverted”, if not insane or sick, and their exponents in need of a return to better mental health.
The world has not yet figured out a cure for this derangement but there is growing belief that one must be found.

As for growing the spiritual dimension by teaching, the most formal example of this in our culture is the experience called Sunday School, which certainly performs the role of religious instruction for children. However, it seems evident that only a minority of the recipients of this intended indoctrination still actively practice their religion as adults. On the other hand, it is encouraging that some parents attempt to teach their children to connect with others outside their immediate sphere, for example by sharing family resources as in sponsoring a needy child or sharing Christmas funds.

Turning finally to empowerment, acquiring the ability to build and grow a sense of connection with something larger than our own being and immediate interests, and in this way give our lives a continuing overall sense of purpose and direction, is arguably the most important determinant of a quality, meaningful existence. Humanity is probably still a long way from describing a workable strategy for doing this, although we believe that as our species masters ever-more complex mental schemes, one will at some point be developed.

What the growth in the spiritual dimension seems to require is an approach in which, from the earliest years of life, the individual learns how to construct beneficial connections with what they can understand to be the largest, most powerful and longest-lasting forces in their lives.

In summary of the analyses of the previous sections, it appears that the sequence of potential nurturant actions identified for the physical dimension could be given sensible interpretations for all dimensions.
The Optimal Development Nurturance Domain

It follows that we could reasonably synthesize our thoughts about potential dimensions of development and the set of actions needed to optimize development in any dimension in a chart like that shown in Fig. 3.1. This can be thought of as a visual representation of the domain of interventions that would be required if human beings are to fully develop in the dimensions or ways of potential growth that nature or a divine being has endowed us with.

The ODND is not some fanciful, passing theoretical construct with little practical application. Rather, it is the grandchild of an original version of this chart developed over two decades ago by a group in the Muskoka/Parry Sound region.1 Formed to promote responsible parenting, this group included participants employed by each of three relevant Ministries, as well as volunteer consultants. In a later study, the original matrix was modified by members of a volunteer North Bay organization that provides mentors for young females, and was found to be effective in suggesting a more balanced program of growth-supporting activities.2 We have come to believe that it is an essential conceptual tool both in personal development and in upgrading the development-supporting efforts of individual organizations and fostering their working together on behalf of shared clients. The set of actions it suggests for fostering development far exceeds what is even conceived as possible by most agencies. These claims will be revisited in this and later chapters of this publication.

Adding Dimensions To The ODND

We sometimes find it productive to add a third dimension to the ODND whose content depends on the use we are making of it. If, for example, some community social agency wanted to do an
in-depth study of the nurturance that a particular individual was receiving, it would make sense to subdivide each ODND column into the principal life focuses. The sense of doing this would be that, for example, an intellectual skill such as critical thinking (e.g., reaching a conclusion about the truth of the information being presented) might be fostered and encouraged in one life context (such as a particular school program) but discouraged
in another (for example, in an authoritarian family or church setting). The agency trying to help the individual would want to know about such conflicts and try to resolve them where possible.

In a second use of the ODND, an individual or agency might want to assess its total nurturance contribution to the community or individual citizen, and a useful additional dimension in this case would have to do with the directness of their nurturance. The column headings in ODND might be described as direct nurturance actions in that they are brought to bear directly on the individual.

The individual or agency’s indirect nurturing action would include providing funds for purchasing direct nurturant services, training nurturers, and even—the authors dare to hope—inventing effective nurturing schemes that would serve to raise the general level of nurturing in a group or society. And it is common to send “our thoughts and prayers” to those who have suffered some tragedy, presumably on the assumption that this will help them return to their regular life and path of development.

These indirect nurturing actions constitute a large part of society’s support for optimal development. As citizens of a community or country, we have some sense of how the public purse is distributed over ODND cells. We know that the big government budget items are for protection from hurt (the military, federal police, prisons), social services (income supplements), health services, and education, and that amounts decrease as we go up the levels of being. These budgets are geared primarily to maintaining the present level of citizens’ development. They contain little for empowerment at any level of being. The well-to-do, of course, can augment the government expenditure with direct and indirect investment in self-development—for coaches, cultural travel, and expensive equipment, but the poor have no such recourse.
The serious pursuit of the optimal development philosophy will require a significant increase in the general availability of resources required to make the transition from maintenance to fullest possible development. This is not likely to come in the foreseeable future from governments that are trying to reduce huge funding deficits. Fortunately, there are three possible alternate sources.

One possibility is the spread of the voluntary growth-stimulating effort now made by some development-oriented parents, teachers, friends and professional workers beyond their contractual obligations. The principal author’s extensive association with literacy trainers in the past has suggested that their voluntary contribution is generally at least 15% more than their job description calls for. As another possibility, a strategic harnessing of the energies and skills of a growing body of retirees could easily double this figure. And more imaginatively, as human development is more widely advocated as an appropriate priority of government, the present GST and HST could be re-conceptualized and embraced as the “social advancement” tax. The claim that we lack the resources to foster optimal development is simply not true.

A Widely Applicable Strategy For Engaging The ODND

We build this strategy from a number of observations about how nurturance is carried out in common life situations. We recall the example of a mother nurturing her child, from which we established the sequence of actions that move from left to right in the ODND. We can observe the same left to right movement when bringing community services to bear in the lives of community members. That is, it makes sense to remove as many serious growth impediments as we can, then attend
to maintenance functions (deal with basic needs and special requirements for healing, the middle three columns), then deliberately enhance development beyond maturational rates (deal with the two right-hand columns). As another example, in major crises (such as earthquakes) we act by intuition and necessity to first save lives, then provide water, food and shelter, and only later to re-open the schools and teach the population how to protect themselves from and respond to similar disasters in the future.

We need, however, to improve on this intuition by invoking a number of additional considerations. First, there is a danger in all human communities to put so much of our resources into the prevention of hurt and maintenance services that the development-supporting services are themselves underdeveloped and under-funded. Most communities today make a significant effort to provide food and shelter for those lacking these basic necessities, but — physical sports aside — few have in place a mechanism for the earliest possible discovery and development of unusual genetic endowment and the potential for outstanding cultural, ethical and spiritual development that comes with it.

Also, the natural human compassion to help those in need seems frequently to dull our awareness that we have to go beyond doing for others by empowering them to do for themselves. To modify an old adage: If we give a man a fish (i.e., meet a basic need), we feed him for a day. If we teach him how to fish (i.e., develop a skill that enables him to meet the need himself), we feed him for a year. If, in addition, we teach him how to manage the fish stocks (i.e., empower him to modify his use of the skill in light of the changing state of the fish stock), we feed him for life. Although empowering others seems an obvious thing to do, it makes them less dependent on us, hence reduces our power over them. Thus only those who sense that real power lies in empowering others will find this a comfortable transition.
When we relate this act of transferring power to the ODND, we have to envisage a sequence of movements from left to right over time. The first is made for the child by the parent, the last by the mature person for himself. And there is a large number of intermediate steps in which the parent teaches the child how to protect himself, meet basic needs and recover from illness and injury. In effect, the parent’s objective for her intervention in the two right-hand columns is that the child acquires strategies for engaging the three left-hand columns. For example, from the earliest interaction in which the parent dresses the child (i.e., meets a basic need), there is a conscious effort to get the child to take on progressively more parts of the task, ultimately doing it all for himself (this “taking on” constituting a form of child development).

Another concern is that the need to make the left to right sweep seems to become progressively less obvious as we move to higher levels of being. It is only recently that we have begun to recognize that preschool children have intellectual needs that require significantly upgraded parental stimulation. Most dramatically, communities have started to identify, and react to, spiritual injury, but remain unconcerned that for many children, no attempt is made to satisfy their spiritual needs, or even to think about what these might be. Even rarer would be for proponents of a particular self-transcendent system to empower adherents to analyse, critique and potentially reject elements of that system—en route to building a personally self-fulfilling life philosophy.

A final consideration that has gone into the construction of our generic strategy is that our focus on nurturing should not cause us to forget the important role of positive outflow in fostering positive emotions and mental health. For example, if we were to undertake to meet some group’s need for food, and two main kinds were available, we would think it right to give preference to what is more culturally acceptable or desirable
for that group, thereby enhancing the positive effect of the nurturant act for its recipients. In general terms, we would try to initiate any nurturant act by engaging the recipient at the deepest dimension of their being that the occasion allows.

From these and similar considerations, we believe that the following might be thought of as a *generic nurturance strategy*, applicable in most situations in which one human being has the opportunity to nurture another.

1. Make a preliminary assessment of the developmental status of the potential recipient. This could be done at different levels of being and/or as an intelligently self-directed person.

2. Determine the target cell (column and row) in the ODND. For example, we might be trying to protect someone from injury to his value system, or meet a child’s basic need for food, or develop an intellectual skill.

3. Moving from the far left of the ODND and taking each column in turn, determine if inadequately met nurturance needs prevent our engaging the target column, and if so activate the nurturing strategy at the least sophisticated level required to overcome that obstacle. Continue until we get to the target column. For example, if the person we want to learn is too hungry to concentrate on our teaching, we will provide a snack.

4. When we get to the target column, engage the student at the deepest possible human dimension that the situation allows, prior to engaging the target cell, thereby enhancing the prospect that he will experience positive outflow.

5. Prior to enacting the nurturance strategy for that cell, decide the extent to which the nurturee is to be involved in
employing the nurturing strategy and tailor the engagement process accordingly.

**How The ODND Helps Us To Better Deal With Nurturance-Related Life Tasks**

The authors have now had about two decades of experience in using the ODND with practitioners from a very wide range of social service agencies. As was stated earlier, we have come to believe that it can be a powerful conceptual tool that adds depth and force to any effort to foster human development. Following are some examples that have led us to that conclusion.

**Giving Consistent Meaning To Nurturance-Linked Terms**

This section picks up on the discussion in Chapter 1 about the need for clearer meanings for development-linked terms.

Most elaborations of the concept of raising children speak of the parents’ responsibility to “care for” them or “love” them. Similarly, most statements of the qualities we want to develop in children include the idea that they should be “caring” in their treatment of others. In these statements, words such as “care” and “love” serve to arouse positive emotions and attitudes, but give little direction to the actions that they require.

The ODND allows us to go beyond these intentions to nurture by laying out for us the complete domain of actions that could be undertaken to carry these promptings into practice. Moreover, it is a constant reminder of important caring or loving actions that, given the press of urgent needs in everyday life, parents seldom think of—notably those in the upper right-hand columns in the ODND. We have felt it important to emphasize these points because the fact that the terms “care”
and “love” do not appear prominently in CSHDE has led some to believe that these concepts are not important to the authors. To the contrary, the truth is that the ODND—which is at the very heart of CSHDE—generalizes these concepts and calls for the most comprehensive set of actions to support them.

**Planning For Personal Development**

Our own nurturance and development must be our first concern if we are to be of help to others. So periodically determining how the nurturance we are receiving from ourselves and other people is distributed over our ODND cells is an important life task. When done honestly, it is also likely to be a disturbing revelation.

What we are likely to discover is that sustained thinking about our own nurturance is confined to part of the bottom row of the ODND. That is, we are constantly concerned about protecting ourselves from harm, meeting physical needs, and recovering from physical illness and injury. As adults we might occasionally attempt to learn a new physical skill.

As for the intellectual level of being, we will sometimes make the effort to acquire some information we need, or watch a TV documentary, or read a book, or even take a course—but this is rarely analysed in terms of the intellectual qualities we are trying to enhance or the level we hope to achieve in these qualities. It also turns out that the things we feel we should value most are given little time, and that we have never even identified the principles we live by, let alone prioritized and used them systematically in our lives. We seem to be creatures that do not rise much above our physical being and so neither seek nor know the satisfactions from deeper layers of being. A periodic ODND-based assessment of our lives would be a prudent complement to the traditional annual physical check-up.
Community Intervention When Children’s Nurturance By Parents Is Deemed Inadequate

Present-day governments intervene in the lives of children who its agents report are not being adequately nurtured—that, in other words, it deems are experiencing or are at risk of physical and psychological abuse or neglect. When such children are placed in other homes, the only justification, as well as the implicit claim, is that they will be better nurtured there.

But knowledge of the details of real cases shows that the people making these decisions focus heavily on the physical dimension, in fact, letting physical disciplining (e.g., spanking for misbehaviour) override all the deeper forms of nurturance that may be in play in that situation. For example, it is disturbing that the autobiographies of more than one great composer suggest that the disciplining practices of a parent would, under today’s legislation, have led to the removal of a child from the very stimulation that led him to be a major contributor to the world’s musical heritage.

From an ethical perspective, what is required in removing children from their homes is an ODND comparison of the existing and contemplated situations for the child. This would admittedly require the development of standards for minimally acceptable nurturance for each ODND column. How such standards could be constructed is the main topic of Chapter 4.

Creating Nurturant Schools

Because children spend much of their life in school, a growth-oriented community will want to go behind the school system’s public façade to inquire how nurturant this man-made assemblage of learners really is. The ODND helps us direct and focus our effort.

The fact is that as recently as 2012 the Ontario government felt the need to create legislation to protect school children
from bullying.⁴ That this was not their first intervention of this kind shows that there is still much work to be done in school in regards to the far left, bottom cell of ODND.

To their credit, in recent years schools have been making serious efforts to become fit places for nurturing children. Today many projects are underway in which students themselves take the lead in anti-bullying rallies and activities. And a majority of schools now have breakfast programs based on the recognition that basic physical needs must be met before serious learning can take place. These brings us over to the Meeting Basic Needs column of ODND, and the question arises as to whether schools can move up to the Valuing and Principles-using levels in regard to meeting basic needs.

CSHDE contributors conducted two relevant pilot projects that appear to have had sufficient success to warrant repeating on a larger scale. The first of these was undertaken about 15 years ago when, to combat what was then called “school violence”, schools were required to develop and display a “Code of Behaviour”.⁵ Written by staff, these were conspicuously long on proscriptions of various kinds of undesirable behaviours by learners, and the penalty for each, but lean on similar proscriptions and penalties for teachers.

In a first study, a grade seven teacher developed a simplified nurturance matrix with his students, and then had them devise the classroom code of conduct from it. This included actions that made other classmates feel good about themselves, which we can construe as meeting their need for positive self-evaluation.⁶

In the second pilot project, a student-constructed levels-of-being chart was used to suggest activities that grade six ‘mentors’ might use with their lower grade ‘mentees’.⁷ These activities moved in the prescribed direction: from eliminating hurt, to meeting basic needs, to modelling physical skills, to building self esteem through proffered friendship. Although we normally discredit the value of “client satisfaction” data, in this case the
enthusiasm of the mentors, mentees and teacher involved in the project convinced us that a larger study would have provided statistically impressive data on participant gains.

As one might expect, these nurturing acts of students occurred where there was support from teachers who themselves saw the need to upgrade the psychological climate of classrooms. We remember Carolynn in particular, a teacher in our region who in our experience set the standard for nurturant classrooms. Carolynn came into her classroom at least two weeks before school started for the year to create a space that was as home-like as possible. This involved creating reading corners, a music centre, and a place for quiet reflection—the cost of the furnishings for which came out of her personal resources. Carolynn intuitively moved through her students’ ODND each day, welcoming them at her classroom door in the morning, and sensing and trying to deal with physical and emotional problems before attempting any instruction.

And all this was prelude to an instructional strategy that incorporated inquiry methods into student-chosen projects. Her teaching intuitions had led her to identify what she called the “frame” for an inquiry, those empowering cognitive schemes that some two decades later became known in psychology as “schemas”.

The outstanding nurturant quality of Carolynn’s classroom was widely recognized. In each of the two years in which an evaluation was made, her classroom was judged by Ministry of Education officers as the most effective language arts program in Northeastern Ontario. As a contributor to and exponent of CSHDE, she was also one of its best advertisements.
The Initiation And Upgrading Of Long-Term, Reciprocally Nurturant, Relationships

The plain truth is that almost half of “till death do us part” relationships fail. Moreover, it is unlikely that those that endure achieve anything like the full potential inherent in such concepts as Moore’s “soul mates”. For most long-term marriages, the prevailing stance seems to be “taking the good with the bad”. It’s the considerable bother of separating, rather than a sense of continuing development, that keeps the couple together.

The stage for ultimate failure begins in the courting encounter, when sexual attractiveness seems to overwhelm any other criterion in the decision to live together. But the possession of an ODND as an intellectual tool would allow young people to broaden their criteria. In a CSHDE designed sexual health program, movement along the sexual intimacy continuum is governed by the potential partners’ assessment of each other at increasingly different deeper levels of being. Even a first date could reveal much about the potential partner’s intellectual status and values. And the joint undertaking of a volunteer community activity would reveal any tendency to dominate or turn nasty in the face of frustration. Bullying and other forms of self-centred behaviour do not begin at coupling, and individuals with intractable power-seeking tendencies would never make it into marital relationships.

Using The ODND In Interactions With Groups And Organizations

It is a stretch, but a useful one, to think of a human group, organization, or company as having the same levels of being as individuals. Certainly, organizations have a physical layer of being, consisting in part of the physical actions they take in regard to clients, and the plant and tools needed to conduct these actions. They also have written procedures that act as guides for
their services, other special kinds of knowledge, and problem solving strategies—all components of their intellectual level of being. It is certainly common to speak of an organization's values and principles, and its mission statement invariably alludes to some higher purpose to which its services contribute.

Thus it is appropriate, when thinking about helping a group or organization of whatever size, to attempt to work from its ODND—moving left to right, and mindful of levels of being beyond the physical. Take for example, attempts to help people in third world countries. Over the past century world attempts to help have moved systematically and progressively across the ODND and have even inched upwards toward higher levels of being. After a tragic occurrence like an earthquake, the first reaction is to send in people to rescue those trapped or injured. At almost the same time police arise to protect the community from those who would capitalize from the chaos. Almost simultaneously, food, water and temporary shelter pour in, along with medical supplies and personnel to help with the injured and ill. Next begins the difficult process of teaching citizens how to protect themselves and empowering them to attend to their own needs. As these latter interventions proceed, they are designed to be “culturally sensitive”, respectful and supportive of the values, principles and self-transcendent affiliations of the citizens.

Maximizing Nurturance In The Work Place

At some point young people go to work, which means that they have to be involved in whatever process their employer carries out. The ODND applies here both to employee and employer.

From the employee's perspective, work places are progressively becoming more nurturance minded. Workplace safety (protection from physical hurt) is now taken as a right, whose violation by employers can lead to severe punishment by
the government. Physical or sexual harassment is increasingly made public and its perpetrators appropriately dealt with. Many employers now respect the values and principles of their employees, for example allowing some flex time to deal with family tasks and problems. An enlightened minority understand that the systematic enlargement of the capabilities of their employees is the best guarantee of economic competitiveness.

At the same time, if employees think of their company’s ODND in addition to their own, they would acknowledge the need not to harm its reputation by unacceptable behaviour and to make a special effort to help it deal with crises and setbacks. But moving to the right-hand columns of ODND they would realize that all processes can be improved by systematic inquiry or creative invention and would constantly be searching for such contributions.

Providing For The Nurturance Of The Nurturance Providers

Our account so far has been one-sided, focusing on the ODND of the recipient of services. But in most life situations there are interactions between several ODNDs that need to be taken into account to promote optimal development.

The consequences of failing to adequately consider the service giver’s ODND is dramatically demonstrated in the nurturance of young children. Recent research on infant brain development supports the validity of the long-held assertion that the quality of the mother/child relationship in the early years is a major determinant of the pace and scope of human development at every level of being. So mothers are increasingly urged to give their children quality time, even when—as is now the case for a majority—they are expected to continue their homemaking roles and/or be a major contributor to family income.
Working through the ODND for today’s young mother reveals a societal failure to provide needed services that has to be labelled neglect, or worse. It is true that health units now offer much advice and some assistance in regard to the mother’s appropriate diet and exercise, but that period of her life is invariably described as one of constant exhaustion. Three of the important focuses of life—self, friends and work—are virtually eliminated, and with them go the opportunities for positive outflow that provide most of the basis for positive mental health. At the very best, this is a period of severely curtailed personal development and a significant obstacle to implementing the optimal development philosophy.

Of course this mother’s problem is greatly compounded in her broader role as homemaker. Now she must not only think about the ODND of her infant, but that of her other children and her spouse. Our correspondents suggest that adequate homemaking with more than two preschool children is beyond the realm of human capability, and must inevitably result in nurturance for both mother and children that is far from optimal.

**Organizing For Human Development At The Community Level**

The vision and mission statements of many community organizations speak to the optimal development of their clients. And a majority of parents would probably agree that the achievement of children’s potential should be an important family and community goal. An ODND-type conceptual tool would clarify the meaning of these broad expectations, as well as give direction to efforts to achieve them.

As for who will advocate the use of an ODND, we argued in Chapter 1 the need for a community-based Human Development Council. At that point we had the local municipality in mind, but
this need can now be generalized to all human communities—working out from the family to the local municipality, the province and beyond. At the family level, the parent(s) already comprise such a council, as they also constitute the family’s economic and environmental development “councils”. That is, they set goals for family economics and engagements with nature, and devise means to achieve them.

A first task for each such leadership group will be to craft what it takes to be an appropriate ODND for its particular community. That is, it will have to decide in what human dimensions it could endeavour to systematically promote growth, and the range of growth supporting actions it believes to be necessary to foster growth in each such dimension. The ODND scheme presented in this book could be a useful starting point, but these matters should be thought anew in each community.

With a community-specific ODND in hand, the leadership group would proceed to determine what part of it citizens believe the community agencies should be responsible for implementing. This determination would require substantial input from a representative sample of citizens, and would provide the data for the statement of what might be called the community’s “social philosophy”. This could be understood as a statement of an envisaged ideal, something to be worked toward over the long-term.

A community’s social philosophy would readily generate a Code of Conduct—a general set of expectations for the behaviour of citizens. In the Appendix to this chapter we show an example that was developed in collaboration with a major religious group.

There are likely to be wide variations in community social philosophies. Some ultra-conservative communities might consider that their responsibilities are limited to providing for an acceptable standard of living, in effect covering the three left-hand ODND columns for the physical dimension and
that component of the intellectual dimension that deals with occupational skills. Communities that believe they should sponsor a high “quality of life” would additionally provide what is needed to acquire cultural and spiritual values. And optimal development communities would add empowerment initiatives that reach up to the principle-using and spiritual levels. Either of the latter two designations would, incidentally, add quality to a community’s promotional literature.

A professed social philosophy must be followed by a reality check, and this is likely to be a shocker. Plotting on the ODND the present development-supporting services that community members receive would reveal a reality quite different from the professed social philosophy. Indeed, in most communities many forms of hurt still go unnoticed and, therefore, there is as yet no protection against them. In regard to meeting basic needs, practically all communities today of town size or greater have to run food banks to feed part of the population. Planned development through teaching occurs primarily in school and then only in relation to a limited part of the intellectual dimension. And the kind of empowerment described later in this book—the ability to do things on one’s own—is often discouraged by community agencies because it would diminish the need for their own services. Thus the typical community’s coverage of its ODND would be poor.

This map of the discrepancies between social philosophy and reality would be the obvious guide for moving forward with growth-supporting initiatives. Literally every unattended ODND cell could be the focus of a development initiative across the entire age span. A sense of priority could be defined by the magnitude and presumed importance of the social philosophy/reality gap for each cell.

To make use of existing motivation, a Human Development Council would respond to the new growth-fostering initiatives that are constantly emerging in today’s communities. It could
assist the goal-setting phase of such initiatives by locating the project in the community’s ODND, and the design phase by bringing forward the generic strategies for dealing with cell tasks (described in Chapter 4).

How much of any particular kind of such services that actually comes to an individual member of the community, and the resulting degree of realization of potential, will depend on a number of factors. In the past, family prosperity was a dominant factor, with the rich able to purchase the services of development specialists and coaches in many areas.

Increasingly society is investing in those with obvious potential for development, fully understanding that this—when coupled with a passionate internal drive in the same direction—may produce individuals who we think of as “geniuses”, but who have many undeveloped and immature sides, as opposed to being “well rounded”. While making this investment runs against the general “close the achievement gap” sentiment that prevails in society, it is periodically admitted that it is usually these one-sided geniuses that make the great advancements and breakthroughs. As with all complex issues, the guiding principle has to be to try to do the most long-term good (provide the most nurturance) for the most people.

When the Council has had a number of successful interventions, it could take on the more comprehensive task of upgrading the effectiveness of our major social institutions, starting with parenting. The family remains the particular human community for which some overall minimum level of nurturance needs to be defined and guaranteed. In the short run, each new revision of the Child and Family Services Act in Ontario expands responsibility for reporting evidence of child abuse and neglect, and in the latest revision extended these responsibilities to include the risk of these forms of hurt occurring. This has been accompanied by growth in programs aimed at upgrading parental competence, but these primarily
augment the focus on the physical dimension and attachment by the weak promotion of the intellect through “play-based learning”.

For those hoping to see large strides toward optimal development in the plannable future, far too many children suffer from what can only be called “inauspicious births”—born to parents whose inability to nurture young children cannot be brought to an acceptable standard with the time and resources available. In the authors’ view, heading off inauspicious births should begin no later than the period of life when young people begin to engage in sexual behaviour that could lead to unwanted pregnancy. The decision to have children should follow an honest appraisal of the ability to modify the coupling relationship to include the adequate nurturing of a third party. This ability could itself be greatly augmented by making the acquisition of knowledge and skill in forming and upgrading relationships part of the mandatory school curriculum. The community’s Human Development Council, in alliance with parents, should be the primary pressure group in bringing this about.

**Increasing Public Engagement With The Political Process**

At this time there is a sense of growing despair about our political system. The fact that only a minority of eligible voters actually bother to cast their ballot is surely a signal that something is wrong. And a majority of those that do vote say that they don’t believe that there is any connection between their vote and the government’s subsequent actions. From this, we have to believe that the fundamental concept and strategy of our liberal democracy—government by the people—is in jeopardy. Some reputable academics who have delved into prerequisites for democracy have declared that they do not believe that the present form of government in western societies can survive.
The growing cynicism about government will hopefully spawn a fundamental re-examination of the meaning and function of this social institution. This will be a critically important step if we are to advance the human development philosophy.

In the interim, the authors believe that the ODND provides a mechanism for re-engaging individual citizens with the political process. For the purpose of our argument we assume that such a scheme would be understandable to emerging adults who in Canada now have typically had two years of post-secondary education. And we also assume that an effort would be made to generate this understanding, perhaps in short pieces explaining their social philosophy constructed and distributed by the different levels of government. After all, the fullest development of the individual is the alleged goal of a liberal democracy, and this cannot be pursued or supported by government until citizens agree on what human dimensions are most in need of development.

With this basic framework established, a next step would be to upgrade the voter’s understanding of the percentage of the government’s present budget that is allocated to support each ODND cell. This would in itself vastly increase the public’s understanding of the financial affairs of their country, province or municipality. Citizens can already get a rough sense of how government expenditures are apportioned to ODND columns by locating and making sense of published financial statements, but these are prepared to meet auditing requirements and are not easy to process by the average citizen. What is needed is a filled-in ODND chart with cell entries adding to 100% and the total budget these percentages refer to shown at the top. This would, as well, be a useful and eye-opening exercise for individuals and families, applying it to their own development and resources.
With this informational background in place, serious public engagement with the government’s budgeting process could begin. In the weakest form of involvement, budget forecasts could show and explain the government’s intended changes in expenditures. And by sample surveys, possible today in a matter of days, it could determine the degree of public support for its proposals.

A more ambitious approach would be to ask survey respondents to themselves propose, by altering cell entries, changes in the distribution of government percentage expenditures. The rule would be that, if the respondent advocated an increase in one cell, he would have to balance it with an equal decrease in another cell. This would discipline the habit of constantly urging the government to spend more on a self-preferred ODND cell without saying where the money for it would come from—and simultaneously demanding that there be no increase in taxes.

This suggestion may be a modest advance in public involvement in government, but it would allow voters to discern whether proposed government expenditure is at least roughly in line with what the electorate deems most important in terms of the maintenance and development of individuals. It could define a minimal level of civic involvement expected of all adult citizens. And it would make meaningful a second round in which some members of the public make judgments about the effectiveness of the means employed by the government in using these assigned financial allotments.
IDEAS TO REMEMBER FROM THIS CHAPTER

We reiterate our usual reminder that because the ideas in the conceptual scheme presented in the book are cumulative, the central new ideas of each chapter should be retained in memory. Our candidates for this chapter are the following.

1. In this chapter we identify the domain (total set) of nurturant actions necessary to foster the optimal development of a human being. This is represented in a two-dimensional chart called the Optimal Development Nurturance Domain (ODND).

2. It is again important to store the general form of this visual in memory for later use, reconstructing its detail from the following hints:
   i. the row headings are the five dimensions of development in our Model For A Complete Person;
   ii. the column headings are the development-supporting (helpful) actions that can be taken in regard to each dimension: protect from hurt; meeting basic needs; treating ill health/injury; promoting growth through teaching and, empowering (adding the capacity for continuing self-development).

3. It is possible to identify a generic nurturance strategy that applies to every kind of human encounter. This begins with assessing the situation of the person to be nurtured and determining the target ODND cell. We then spontaneously move from left to right in the ODND, seeking first to remove existing or anticipated development-retarding actions until we get to the column containing the target cell, at which point we first try to engage the nurturee at the deepest level of their being the circumstances allow, prior to engaging
the target cell. Finally we design our approach so that the nurturee is involved as much as possible in the carrying out of the nurturance strategy for that cell.

4. The Optimal Development Nurturance Domain can be applied to groups of varying size. It applies as well to institutions within the community, including the family, school and workplace as well as to the development-supporting projects they initiate.

5. It is important that we attend to the ODND of the nurturer as well as the ODND of the nurtured, a point dramatically illustrated by the chronic exhaustion of the growth-oriented mother of preschool children.

6. It is especially important that we identify some minimally acceptable level of overall nurturance in human families, and to take steps to bring this about. Short-term efforts at reporting development-retarding hurt to children must be augmented by long-term efforts at reducing the number of inauspicious births.
Humankind needs a radically revised mindset, one which more self-consciously supports the advancement of individuals and humankind as a whole while more deliberately eliminating forces that act against it. This proposed Code of Conduct, derived from the Optimal Development Nurturance Domain (ODND) and other CSHDE concepts, tries to capture this mindset in a set of general expectations for human conduct, expressed as principles or prompts to what would be considered desirable action by proponents of an optimal development philosophy. The proposed principles/prompts are in italics, and each is followed by a short, explanatory note.

The general expectations are that fully developed human beings will:

1. **Contribute to the maintenance and continuing advancement of humankind acknowledging as a prerequisite the ongoing development of the positive attributes of individuals and groups.** This Code presumes a desire to “make a difference”, or to “do some good in the world”. Common sense tells us that as a whole humankind will advance to the extent that individuals continue to develop and apply all the human dimensions identified in ODND.

2. **Support the development of individuals and groups through the comprehensive nurturance of their physical, intellectual, valuing, ethical and spiritual levels of being.** A comprehensive nurturing process incorporates love, caring, respect and other virtues into acts of protecting from hurt; satisfying basic needs; supporting recovery from illness; promoting learning, and empowering. The intent to “love” is made operational through acts of nurturance. We can visualize the
Optimal Development Nurturance Domain by thinking of levels of being as forming the headings in a two-dimensional chart, and the range of nurturant actions that can be taken in regard to each level as the column headings.

3. Work for the just distribution of nurturing resources, equitably sharing their own time and material resources among themselves, their loved ones, and those more distant from themselves. Our first obligation is to nurture ourselves and those for whom we have direct responsibility under the law and by social contract. But given the huge inequalities in access to the resources required for full development as human beings, and the now well-documented negative consequences of these inequalities, this argues for the furthest outward application of the ODND that our resources will allow.

4. Think of all individuals and organizations as capable of initiating action from self-transcendent purposes, even though they do not always do so. To the greatest extent possible, always try to engage these higher purposes of others, encouraging and empowering them to better carry them out by building from their strengths. We dehumanise when, because of our own anxieties or ignorance, we fail to treat others as capable of acting as fully functioning human beings, or automatically assume that they are proceeding from less worthy goals than ourselves—and, therefore, are deserving of our censure or exploitation. We treat others as fully functioning human beings when we find out their own valid, human advancement purposes, and help them to better realize these purposes. This draws upon the generic strategy for moving through the ODND.
5. Apply their best understanding to the nurturance of all living things, synthesizing what they learn from life experience, from the results of scientific inquiry and research, and from insights reliably accessible from intuition, creativity and other ways of knowing. From life experience we acquire “big pictures” (mental models) for how important development-supporting processes work—for example, that the ongoing operation of living systems involves taking in nutrients, exercise, rest and the elimination of the noxious by-products of their operation. Science tells us the constituents of a nutritious diet, religion teaches us that food and diet can have spiritual as well as physical impacts, and “messages” from our bodies tell us when we are under or overeating. As we better employ and integrate these sources of information, we grow in wisdom and in our ability to do important things better. This draws upon the strategy for building schemas for ODND tasks.

6. Accept with humility their need to work with others to support the advancement of humanity and actively work toward the integration of the efforts of all individuals and groups in their communities and beyond. Resolve inevitable problems and conflicts with partners and others through a dialogic process in which good ideas are synthesized into a shared position on needed action. Egocentrism is an inescapable point of departure for human life. It becomes a moral fault when we arrogantly assume that we can make a significant, long-term contribution to human betterment on our own, and fail to invest the energy and commitment needed for effective partnerships. To resolve inevitable conflicts and problems, we have to move beyond debate to engage in a kind of dialogic process that cumulates and integrates our individual insights.
The proposed Code Of Conduct is a set of enduring prompts to ethical action, stated in very general form. To make this Code operational, we would identify a set of concrete, age-linked expectations for each component that could serve as developmental benchmarks. Individuals who fail to achieve the levels considered appropriate for their age would be deemed “immature” and in need of remedial social intervention.
CHAPTER 4

SCHEMAS AND MENTAL MODELS FOR INTERVENTIONS WITHIN THE OPTIMAL DEVELOPMENT NURTURANCE DOMAIN

In the Optimal Development Nurturance Domain (Chapter 3), five generic actions were identified that could be applied to each human dimension or level of being. These actions can also be thought of as five generic tasks for promoting the optimal development of human beings. To develop as fully as possible individuals must have these tasks performed for them when they are very young but must ultimately be taught how to carry them out for themselves.

This chapter presents the strategies by which these generic tasks are most effectively addressed. It begins by arguing that the present practice of providing factual knowledge and procedures should be upgraded by the use of schemas and mental models. It then presents a summary schema and mental model for each of these five generic tasks, and locates elaborating commentary
in the chapter’s Appendix. Finally it describes how practitioners can create or upgrade their own schemas.

Why We Need To Progress From Procedures To Schemas And Mental Models

We typically try to teach someone how to perform a task by giving them information of two kinds—the first factual, the second procedural. For example, when West Nile virus made its appearance in Northern Ontario, the Ontario government wanted to teach the public how to protect themselves. So it was quick to tell us what the symptoms and consequences of the disease were, and how it was transmitted from certain species of birds to mosquitoes and then to people. This was the factual part of its message.

The government then gave us a list of do's and don’ts in relation to interacting with mosquitoes. A “do” was to spray ourselves with mosquito repellent before going outside in mosquito season. A “don’t” was that we shouldn’t go outside at all in those periods when mosquitoes were known to be about in quantity—such as immediately before sunrise or immediately after sunset. We can also think of such instructions as procedures or rules to be followed.

Under certain circumstances specific procedures are useful, as in making a particular kind of bread or operating a particular tool. We need to be very specific, for example, in regard to the amount of yeast we add to our bread mix, or we will have a culinary disaster. But one fatal weakness of many procedures is that they usually only apply to certain situations but fail in others; for example, the rule “to avoid mosquitoes stay indoors immediately before sunrise and immediately after sunset” will work in urban areas but cannot be sensibly used by farmers, woodsmen and other outdoor workers.
Such failure seems to generate the tendency to make specific procedures for every situation that life presents, in the present case for avoiding mosquitoes in the daytime, at sunset, in the house, in the car, in swampy areas and so on. Today safety rules are constructed for every device that human beings could use, for every sport they might play, and for every foreign place they might visit. This means that to cover just the physical risks life presents us we could concoct a virtually unlimited set of rules, far beyond human capacity to remember or motivation to do so. Indeed, lists of safety rules have proliferated so rapidly in recent years that it has been suggested that their incessant presentation has become a form of social nagging, having little more effect than nagging does in other social situations.

We might try to compensate for this by proposing very general rules that apply across the widest possible range of situations. Many parents’ final words to their teenager as she prepares to drive off in the family automobile are “Drive safely”. And this rule can be generalized across a broader range of tasks by finding expression as “Watch what you’re doing” or “Be careful”. The trouble with this level of generality is that it doesn’t give any concrete advice about the action to be taken when the need arises to do so.

What the effective performance of life tasks would seem to benefit most from would be guiding mental structures that are general enough to apply to all tasks of a certain kind or category—such as making decisions—yet allow us to determine the best moves to make in a specific situation.

We and others have called these mental structures “schemas”. They are descriptions of the main components of a process involved in undertaking a certain kind of task, where the components are described as variable as opposed to fixed quantities (i.e., are variables). In general terms, the schema user brings this conceptual tool into the performance of life tasks, and by using information about the context (“reading it”), scientific
knowledge known to him and common sense, determines the best values to be assigned to the component variables.

**Schema For Decision-Making**

To add concrete detail to this abstract description, we show in Fig. 4.1 a schema for the process of making decisions, surely one of life’s truly important skills. As shown, making a decision about anything can be conceived as having five major components: envisaging potential courses of action (alternatives); determining the criteria by which alternatives will be judged; weighting these criteria; finding information that links alternatives to criteria, thus evaluating the alternatives based on these criteria; and synthesizing the information to determine a best course of action.

![FIGURE 4.1 Schema for decision-making process.](image-url)
In the process described as “linking information generation”, the score of each alternative on a criterion is multiplied by the weighting of that criterion, the numerical result entered in the relevant cell and the cell entries added up for each alternative to give its overall score, as shown in Fig. 4.2. This is a straightforward decision-making procedure that can be augmented for complex decisions by selecting criteria and alternatives systematically from designated classes.

In some situations a person or group may proceed through these components in the order stated to arrive at a choice, in effect following a commonly advocated decision-making procedure that reads:

i. State the alternatives;
ii. Identify the criteria you will rate them on;
iii. Weight the criteria (and scores) according to importance;
iv. Find (through linking information) how each alternative rates on each criterion;
v. Calculate the scores and choose the alternative with the highest overall score.

This procedure can improve on the common standard of decision-making in real life, which rarely engages adequately all the components of the decision schema. In group decision-making, the procedure works best when there is a strong leader who can compel participants to stick to it, rather than saying what at that moment is prompted by their emotions. A parent-guided family decision about where to go for a Sunday picnic might well follow the procedure closely.

However, decision-making in real life is rarely so straightforward as the linear procedure suggests. For one thing, in many life situations the discussion about what is the best thing to do has already been underway for some time when we become involved in it, and the discussion can’t be turned back to the beginning of the procedure. For example, major social decisions, such as where to locate a new secondary school, are
<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>CRITERIA WEIGHT</th>
<th>Greasy burger joint Rating/score</th>
<th>Michelin-starred restaurant Rating/score</th>
<th>Thai café Rating/score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food quality</td>
<td>4 (most important)</td>
<td>1 4</td>
<td>9 36</td>
<td>8 32</td>
</tr>
<tr>
<td>Cost</td>
<td>3</td>
<td>10 30</td>
<td>1 3</td>
<td>8 24</td>
</tr>
<tr>
<td>Ambience</td>
<td>2</td>
<td>0 0</td>
<td>9 18</td>
<td>6 12</td>
</tr>
<tr>
<td>Service</td>
<td>1 (least important)</td>
<td>5 5</td>
<td>8 8</td>
<td>8 8</td>
</tr>
<tr>
<td>OVERALL SCORE</td>
<td></td>
<td>39 65</td>
<td>76</td>
<td></td>
</tr>
</tbody>
</table>

**FIGURE 4.2** Decision-making example. In CSHDE the criteria derive from our values, while the weights reflect their relative priority in our system of principles. If you experience a conflict between mind and emotion when presented with the results of a decision-making exercise, this means you must have overlooked some criterion that is important to you, or weighted them incorrectly—so go back and check these possibilities out.
debated for years in a community, and we can come into such
debate at any point in its evolution. As another example, we
may read an editorial or letter to the editor in which the author
expounds an argument about why the community arena needs
upgrading, and we try to articulate the response we would make
to it. And a major family decision like buying a new house will
be revisited many times before the final choice is made.

So in a very real sense the particular decision-making
episode may have a “history” when we get involved with it. This
involvement may be private, if we are just making an internal
critical response to what we have read or heard. Or it could be in
the company of others if we are part of a decision-making team.

In either case, certain alternatives have been put forward,
and reasons given to support or dismiss one or more of them,
and evidence brought forward in support of these reasons. After
reading the situation by mentally plotting the discussion so far
on the decision schema, we might think it most important at
that particular point to question some of the linking evidence
that has been advanced, or to propose additional criteria for
appraising the alternatives proposed, or even to ask if there
could be alternatives that have not yet been brought forward.
Which of these we pursue at a particular time depends on our
judgment about the need to advance them at that point in the
debate.

A person who carries a decision schema in his head has a
“big picture” that enables him to elevate the quality of decision-
making or debate of an issue whenever the need for that occurs
to him. Simply by using the schema he brings the discussion to
a more comprehensively rational level, an advancement in the
intellectual dimension. He can invoke the values dimension by
recognizing that the decision criteria reflect personal or group
values, and trying to comprehensively identify, prioritize and
apply the ones that apply.
He can even push the discussion to the principles and self-transcendence levels if he understands how the deeper human dimensions influence the relative ratings applied to different classes of criteria. For example, in the current debate about extending oil pipelines across Canada, the classes of criteria most visibly employed are economic benefits to the country as a whole, the effects on the natural environment, and the well-being of the aboriginals who live in the areas to be traversed. We can easily identify which class of criteria will be advanced by the different parties involved in the debate, and the principles on which their preference is based. And we understand that there will have to be some accommodation of these competing principles in a satisfactory resolution.

**ODND-Linked Schemas**

With this understanding of the nature and use of schemas we may now profitably discuss the schemas involved in ODND tasks. A more detailed description of these can be found in the Appendix to this chapter. We recall from Chapter 3 that these tasks are:

1. Protect from hurt;
2. Provide the basic nutrients, exercise and rest that a system needs to operate and maintain itself;
3. Repair and promote healing or recovery in malfunctioning or damage to a system caused by injury or illness;
4. Stimulate growth in system elements and/or functioning beyond what would occur naturally if 1) and 2) were in place;
5. Try to optimize the development of a system. At some point, this requires the individual to take charge of his
Further development (i.e., to become “empowered” in the most potent sense of that term).

The “Protect from hurt” task can be further specified when we need to distinguish between degrees of hurt. These can be described as the negative or development-inhibiting (hurting) counterparts of tasks 2–5, as follows:

1. Neglect: knowingly deprive a system of the nutrients, exercise, and rest needed to operate and maintain itself;
2. Injure: damage or cause illness to a system to a degree that interrupts its normal functioning;
3. Abuse: treat a system to a degree that requires recuperative treatment before normal development will continue;
4. Permanently impair: injure a system so severely that it can never fully recover.

In this book we have developed a single Risk Management mental model to deal with protecting from these four “hurts”. Thus five mental models are presented in the ensuing paragraphs.

**Mental Model For Risk Management**

The basic schema for risk management (protecting a system from hurt) is: envisaging the action to be undertaken in the place where it is to occur; making a risk (costs/benefits) assessment of undertaking this action and making a decision about whether to proceed with the action; and if so taking such advance protective measures as we can. When children are in their parents’ care, or put in the care of another person, society expects that all components of this basic schema will be enacted to a sensible degree, at least for the physical dimension, although the threshold for a charge of “neglect” (failing to undertake some of the components) has yet to be defined in a precise way.

As for the applicability of this schema to other dimensions of development, in Chapter 3 we presented examples of
development-impeding hurt in the intellectual, valuing, principle-using and spiritual dimensions. The implication is that a society espousing optimal development of citizens needs risk management schemas for all these dimensions.

The most obvious way of dealing with this would be to use a procedure for constructing a schema for an identified class of tasks, such as the one shown later in this chapter, to create an independent safety-mindedness schema for each level of being (see the section entitled *How to construct a schema and mental model for a life task*). We expect that this will ultimately happen when society makes up its collective mind to identify and deal with hurt in a comprehensive way—instead of, as it does now, of reacting to the shock of specific instances of horrific, visible acts of hurt. But this would require a considerable effort that is beyond the scope of this book.

Having identified the risks to the development of each dimension, we can now classify more precisely the examples we gave in Chapter 3. Working down through the dimensions, the spiritual, principle-using and values examples were somewhere between the “permanently impair” and “abuse” levels of impact, in that the damage done is either beyond repair or would require substantial recuperative treatment. But overcoming the intellectual hurt of misinformation, a minor cognitive hurt, is readily accomplished through re-teaching.

Unexamined as yet are hurts that would be classified as neglect. Broadly speaking, neglect is the failure to provide what is needed for the maintenance of a dimension—those elements will be fully elaborated below in the schema for meeting basic needs. In Chapter 3, we suggested for each dimension what would be required for one of these elements—providing the basic nutrients. Once we have the schema for meeting basic needs in hand we will be able to greatly expand our list of growth-impeding neglects. But for the present we can say that contemporary society does not even acknowledge, let alone
provide, the nutrients required for the optimal development of an individual’s values, ethical behaviour and spirituality. And our educational institutions delude themselves when they believe that they protect learners from neglect of higher intellectual functions—such as problem solving, decision-making, critical thinking, and the progressive enlargement of their mental schemas for engaging essential life tasks. This expansion of risks would also apply at the physical level. So we could now enlarge the ODND by subdividing the “Protect from hurt” column in Fig 3.1 into four sub columns when we need to distinguish between degrees of hurt (as noted earlier). The resulting eight-column chart might sensibly be called The Expanded Optimal Development Nurturance Domain.

We turn now to the elements in the risk management schema called “Make a cost/benefits decision” and “Undertake advance protection”. Speaking in general terms again, these are carried out only when the potential hurts are obvious, in which case the remedies seem to follow from the schema. For example, if we envisage a child being transferred to an available foster home, we can envisage risk to his spiritual beliefs when the family in that home is of a different religion. So the agency in charge will protect the child, either by making a negative cost/benefit decision (cancel intended event) or by requiring a promise from the receiving family that the child will have the right to practice his own religion (providing advance protection).

For many development situations on a global level an identified abuse may be difficult to protect against. One of the major concerns in the world today is gender inequality, which we define as the dramatically superior access of males to the actions in the ODND, the expected outcome of which is underdevelopment of females at every level of their being. Various remediating initiatives have been launched by organizations and prestigious world figures. But overall these are having modest success because the necessary changes in cultural and religious
beliefs about gender entitlement is opposed by the politically dominant male possessors of those beliefs.

**Mental Model For Meeting Basic Needs**

The basic components of this schema are: identifying what is required to satisfy basic needs; and scheduling their application within a defined time interval to realize the most satisfaction and growth stimulation.

Let us consider the first component. For the processes involved at the physical level, the need satisfiers are: nutrients required for system maintenance and development; exercise/use of systems; rest; and elimination of internal wastes resulting from exercise. In earlier chapters we have argued that the first two can be given sensible meaning for all dimensions of development. The suggestion that we need to take a break (rest) from our values, principles and self-transcendent connections would be more controversial, although common folklore recognizes such phenomena as “the seven year itch”, “kicking the traces” and “taking a break from”.

We are intrigued by the possibility of eliminating harmful by-products of the use of a dimension of development. At the intellectual level, a case could be made for eliminating concepts that have by non-definition and natural expansion become meaningless or were just a passing fad in the first place. Principles spontaneously or unsystematically applied can result in a self-favouring adjudication of issues disguised as ethical (principled) behaviour. And the world is currently alarmed that sincere religious conviction can lead to and justify the murderous treatment of those who do not share the same beliefs.

In regard to the second component, the optimal scheduling of need satisfiers, it is easy to think of instances in which a strictly linear ordering of need satisfaction is subordinated to
the intent to maximize satisfaction and grow. Every parent knows that young children, if engaged in something they value, have almost to be bullied into coming in to supper. As an adult example, regularly scheduled sexual encounters may be put off until “the moment is right”, meaning until higher order dimensions can be brought into play. The “orchestration” of need satisfiers is part of the more general orchestration of consciousness discussed in Chapter 2.

So we can see that the schema for meeting basic needs, developed initially from examples relating to the physical dimension, either applies clearly to all levels of being or is sufficiently suggestive to invite further attempted application in any real situation. In the execution of the second component, needs satisfactions at one level of being are often delayed by first satisfying a higher order need.

**Mental Model For Dealing With Injury And Illness**

The main components of this schema are: remove the hurting agent; decide what healing/repair actions are required; perform needed specialized services; initiate healing/recovery actions at the level of being at which hurt/disease occurred; where possible, initiate healing-supporting actions at a higher level of being.

At the physical level, the specialist services would be provided by a medical doctor and/or spiritual healer and at the intellectual level by a competent teacher. For a damaged or devalued self-concept, as brought on for example by sexual abuse, the help of a psychologist or psychiatrist would likely be sought. Individuals with a distorted or “warped” set of principles might be helped by a spiritual advisor. At the present time, society has no identified professional for spiritual hurt, and it perhaps can be only self-remedied.
It is a matter of frequent controversy as to whether the last two kinds of specialists have strategies that actually improve the incidence and speed of recovery beyond the impact of the natural, inner healing powers.

**Mental Model For Stimulating Development Through Focused Teaching**

The components of this schema are: define the intended learning outcomes by type of objective; define growth paths, and major transitions (significant growth increments) within them, for these objectives; identify and apply a teaching/learning process that is sufficient to achieve these transitions; identify the teacher/learner actions to be undertaken at each phase of the instructional cycle; marshal the human resources required to carry out these actions.

This schema was developed and refined over a long period of time and has been found effective in realizing growth transitions in the physical and intellectual dimensions. The first and second components could be undertaken at the valuing, principle-using, and spiritual levels. But it would not be true to claim that we have demonstrably effective strategies for achieving critical transitions at these levels. Inventing such structures should be a primary focus for research and development programs in human advancement.

**Mental Model For Continually Upgrading Performance**

This is an empowering schema that allows the individual to take control of his own continuing development, a self-evident requirement for realizing the greatest possible personal potential. The main components are: identify the elements in the process to be improved; compare how these elements are engaged by those more expert in the process; determine
elements that the more expert task performer does differently; determine by experimenting if adoption of one or more of these different ways would improve performance in the process; decide whether the cost/benefits of making a change would make it worthwhile.

There is no problem in finding superior exponents of a physical process, such as making coffee or growing potatoes or making a kite. They can also be found for such intellectual tasks as defining concepts or solving problems. And we could probably even find “experts” in crafting and orchestrating values into a development-supporting lifestyle.

But it would be difficult to find someone who follows a describable process for developing, prioritizing and employing principles in his life. And rare indeed would be the person who could tell us how she constructed a personal process of self-transcendence—the ultimate step in realizing her fullest possible development.

These brief comments about the individual mental models are little more than hints that they have something to offer at every level of being. As suggested at the beginning of this section, they could be raw material for an effort to create unique schemas for these levels.

**How To Construct A Schema And Mental Model For A Life Task**

Mental models and schemas were developed over a two-year period by a small group of child-development supporters in Northeastern Ontario that included the authors of this book. We first constructed the basic schema for the process inherent in a task; this was then incorporated as the Plan component of the more comprehensive mental model for intelligent self-direction. As mentioned earlier in this chapter, although the
more comprehensive mental model meets our definition for a schema, we thought it useful to give it a name that distinguishes it from its Plan component.

Here, roughly speaking, is how we went about the critical, initial construction of the task schema:

1. Each member of the group recalled the last occasion upon which they engaged the process for the model being developed. In the case of the risk management model, each member thought of the last occasion upon which, in anticipation of doing something, they became conscious of safety concerns.

2. The examples were arranged roughly in order of apparent complexity. For instance, some of the safety examples given by members of the group in question were: walking to a nearby store after dark; driving on a highway given the forecast of snow, and traveling to a foreign country.

3. The person contributing the first example recalled his safety-related thoughts at the time. These were written down as a list of actions.

4. This was repeated for the second person, but items in this second list were placed beside items in the first that had the same general sense.

5. The lists were synthesized or integrated into a single list. This step required that:
   i. Different examples of the same thing were subsumed under a more general term. For instance, if one example referred to wearing a hard hat, another to wearing unbreakable glasses, and a third to wearing sun block, the synthesized list referred to “wearing a protective
device.” It is at this stage that the components became expressed as variables.

ii. Large pieces were broken into smaller ones, if required. For example, the larger piece “taking advance steps to protect self” could be broken into “wearing a protective device” and “modifying the intended action to lower risk of hurt”.

iii. Completely new steps were added where required.

iv. The whole set of elements was rearranged (restructured).

6. The process was continued until new examples were assimilated into the steps already written down, without further generalization, subdivision or addition.

The starting point for following this strategy is to recall a life experience in which an existing schema was used. This seems to remove the possibility of constructing schemas for processes in which we have not already had experience. This can be overcome to some extent by adding more experienced people to the group—which provides, incidentally, a meaningful support for the concept of “the wisdom of elders”.

Value To Collaborating Groups Of Constructing Their Own Models

The authors have found that the experience of building a shared model brings a group together conceptually to a far greater degree than importing the model from some outside “expert”. For one thing, sharing and using each other’s life experience constitutes a kind of intellectual intimacy that readily carries over into trust. Again, the product is truly a shared resource, written in language that is meaningful to group members, hence one to which project thinking is more willingly subordinated. And once brought to a state of maturity allowed by the group’s
experience, the mental model conveys a sense of power and thus generates a willingness to address problems previously thought by the group to be beyond their resolve.

**Important Tasks Better Performed Through the Use of Schemas**

The case can be made that any class of life task can be better performed by upgrading from a specific procedure adapted to a particular circumstance to a more general procedure that translates into the best action to be taken in the many circumstances under which that task is performed. In the present section we deal with two important cases in need of special attention: setting standards for nurturance services and the integration of scientific knowledge, reflected life experience and intuition in the better performance of important life tasks.

**Setting Standards For Nurturance Services**

The development of mental models for interventions carried out within the Optimal Development Nurturance Domain allows us to think about standards in a new way.

Although measurement-based standards for the use of physical devices and materials abound, humans are just now beginning to take seriously the idea that standards for services that promote human development—such as parenting, teaching, or counselling—are both feasible and desirable. At the present time, a traditional emphasis on evaluating services is slowly shifting from paper qualifications of service providers, client satisfaction data and uncontrolled comparison to formal experimental tests measuring developmental gains from the application of services. A proper experiment requires the random assignment of subjects into experimental (receive the
IMPORTANT TASKS BETTER PERFORMED THROUGH THE USE OF SCHEMAS

service) and control (don’t receive the service) groups and the assessment of results by persons not delivering the service.

As this has occurred, evidence from true experiments almost invariably indicates much less positive impact from traditional services than the public or the service agencies themselves believe to be occurring on the basis of client satisfaction data. True experimental design is expensive, time-consuming and rarely possible when dealing with human subjects, and therefore is not available on a large enough scale to warrant widely generalizable conclusions. Thus we usually have to revert to process evaluations—that is, to an evaluation of the sophistication of the actions performed at each stage of the process—where the best measure of the sophistication of a strategy is its location in a growth scheme. The ODND suggests three new process evaluations.

First, although the primary point of intervention of the services of most community organizations can be located in a particular column or part of the ODND, all agencies must give at least some attention to all columns. For example, the classroom teacher cannot be effective if a learner is hungry or suffering from some physical hurt, so this impediment to learning must be attended to first. Moreover, as has been mentioned before, it is sensible that we move simultaneously left to right and upward in the ODND. Thus a first standard would be what portion of the ODND service providers have dealt with when enacting their particular service. From this perspective, even an expert physical intervention that ignores a client’s values or ethical principles might reasonably be judged not to meet an acceptable standard for intervention in the lives of human beings.

The second and most widely recognized standard would be the sophistication of the strategy used by the service provider to engage any column (generic task) in the ODND on behalf of a client. In the previous section we present a comprehensive schema for risk management. As we indicated earlier, when a
child is put in the care of another person, society expects that all relevant components of this strategy will be enacted at a certain level, and failure to attend to any component would be considered “neglect”.

A potential third standard is the level of use of such a strategy that is inculcated in the client himself—for example, the level of safety-mindedness that a service program develops in the child by entry to grade one. Parenting programs rarely address in any detail how to make the transition from doing for the child, to doing with the child, to having the child do for himself. These transitions are prerequisite to development all across the ODND including the stimulating development column.

In summary of the previous paragraphs, the conventional assessment of ODND linked services produces very specific assessment devices, often in the form of checklists applicable to a particular context. The scope and utility of the assessment process is vastly expanded by appraising the performance of ODND tasks from the perspective of (i) the degree to which prerequisite tasks are also dealt with; (ii) the complexity of the schema governing task performance; and (iii) the transfer of schema execution to the recipient of the service.

The Integration Of Scientific Knowledge, Reflected Life Experience And Intuition In The Better Performance Of Important Life Tasks

The question of how theory and research based knowledge, reflected life experience and intuition contribute to the performance of life tasks is a long standing one, with contending perspectives. For the most part, preparation programs for work in education and social service agencies seem to regard professional practice as an “application” of theory. In this traditional approach, academic staff describe a theory about some aspect of human behaviour (e.g., Piaget’s stage
development theory) but leave to their student practitioners the task of applying it to a task in their practice (e.g., fostering a particular aspect of children's intellectual development). In the authors' long experience in education, teachers-in-training have not found their theory courses (euphemistically described as “foundations”) to be of much help in acquiring professional skill.

At the opposite pole, as reflected in our West Nile Virus example, practice can be brought under the control of specific procedures and information. But the evidence is that they typically do not confer skills that can be applied beyond the context in which the procedure was taught. It seems clear that these elements are instrumental in guiding behaviour only when they are embedded in the schemas that individuals use to guide their engagement of life tasks—such as the risk management schema. Without this embedding, even “scientific” knowledge remains “inert” (in the sense of precipitating or directing no subsequent action).

There is a history of antagonism between these perspectives. In academia, theory reigns supreme for prestige and promotion purposes, and practical know-how is thought an inferior form of knowledge. For their part, practitioners often dismiss the whole academic effort in social science as being “just theory” or “ivory tower”—if not in more earthy terms.

In the perspective advanced in this book, the starting point for better performance in important life tasks is the schema we build for engaging them. By re-examining how these are constructed we can determine the critical elements involved. So we first return to the chapter section entitled “How to construct a schema and mental model for a life task”.

The first step in this strategy requires a range of real life experiences in dealing with the task for which the schema is being constructed. Then, when the separate procedures are aligned, specific instances of action are subsumed under a more
generic term, a concept-formation task associated with the early stages of theory building. The more potent the concepts in the schema builder’s arsenal are, the more powerful the resulting schema.

In the second-last step in the model building process, the existing elements of the schema under construction are “restructured”. More detailed sub-steps for doing this are not reported in our strategy, and we may simply attribute the success of this step to creativity or intuition.

This preliminary hint of how theory, experience and creativity/intuition are brought together in constructing schemas can be elaborated by looking at the resulting schemas themselves. For example, in the Meeting Basic Needs schema (see Appendix) the first step under Plan is to determine the kind and amount of nutrients needed to maintain the components of a dimension in good health. Our health scientists have developed a category system for foods in terms of the nutrients they supply (theory). And the needed amounts in terms of servings are determined in part by experiment (experience), amply supplemented by “expert” opinion (creative imagination). In the common parlance of health practitioners, their dietary advice is “research based”. At the spiritual level of being, the kind and amount of “nutrient” required—for example, the need for congregational prayer—is determined by the spiritual leaders without the benefit of confirmation by experiment.

The schema for continually upgrading performance yields further insights. When, in step 2 of the Plan we have to compare how these elements are engaged by those more expert in the process, this is reminiscent of how the steps in our schema-construction strategy were generalized. And the confirming experiments in step 3 might well have been the subject of a research by a university staff member, the results of which were published in an academic journal or professional publication.
We regard the remarks of this section as our opening salvo on what needs to be a continuing broadside on the formidable challenge presented by generating and using knowledge that will help in optimizing human development. So far we have seen where theory, research-based knowledge, and intuition/creativity are drawn into CSHDE schemas, adding to their sophistication and strength, and can infer from this a potential upgrading of the theory-practice debate. We pick up the challenge again in Chapter 5 where we add to our account of the CSHDE approach to retrieving and augmenting the practitioner’s existing task schemas, and in Chapter 7 where we describe our strategy for empowering practitioners to continually upgrade these experience-based schemas.

Application Of ODND Schemas To Groups

In our analyses so far we have focused primarily on trying to apply ODND task schemas to individuals. But because in the previous chapter we have shown that levels of being apply also to groups of people, it seems plausible that the major components of the ODND schemas might apply as well. In the following paragraphs we explore this idea further.

Let’s start with young people at an age that they are thinking about marriage or living with a partner. We know that the process of living together has potential hurts, in at least half the cases of sufficient magnitude to lead to separation. In many other cases the result is to make a “taking the good with the bad” decision to continue to live together. This is far from the ideal of constructing a “we” in which the partners help each other become “their deepest and truest selves”.

It might seem silly to try to apply a risk management strategy to this situation. Yet just carrying out its first step would force the potential partners to think through the process of interacting through a lived day as they engage the inescapable life tasks.
Taking each level of being in turn, they could get some idea of the potential satisfactions and hazards. At the intellectual level will they be able to develop through dialogue a shared strategy for family life and child rearing? At the values level, will they be able to share the positive emotions of engaging the things they value most? Do they share and similarly prioritize the principles of conduct that are to govern the relationship of their collective “we” to the larger world? And do they see the possibility of a shared self-transcendent or spiritual life through which they become each other’s soul mates?

There would be much guesswork in such a prognostication, but a true courtship should surely follow this path, rather than inducing the potential partners to present a courtship persona that they cannot sustain in everyday life. And the result could lead, in the second stage of the risk management strategy, to a decision that is far better informed than what results from raw biological attraction.

This pre-living-together inquiry could be greatly enriched by applying other ODND schemas. Working through the Meeting Basic Needs schema would reveal compatibilities and discords in food, housing, and physical activities. The Dealing With Injury schema would require advance thinking as to whether the steps proposed in it would be sufficient to facilitate recovery from a major injury to the “we”, such as its temporary invasion by a third party. The schema for stimulating development through focused teaching would require partners to consider whether their attempts to instruct each other are to go beyond the telling and nagging of typical married life to methods of teaching that genuinely promote the partner’s understanding and skill by retrieving and building on what he already believes, knows and can do.

Given the useful products of applying ODND schemas to the primary human twosome, we are optimistic that some new and useful insights would follow from repeating the exercise at
the community, nation and world levels. We are not going to make that effort here. But it does seem that all these human groups intend to carry out some process in some place, that there are foreseeable risks to doing this that can be linked to levels of being, and that it is sensible to make such advance preparation as we are able to get the best result.

**When Several ODND Schemas Must Be Applied Within A Single Encounter**

We have previously described the assessment that must be made when a social agency decides to remove a child from his home and place him in foster care. Every ODND cell is relevant to that assessment, so the schema applicable to every cell defines a potential standard. However, because only the standards for the physical dimension have anything like a clear definition, the actual assessments undertaken rarely move beyond the two bottom row left cells of the ODND, and then only act to protect children when parental conduct visibly falls below acceptable norms.

For those promoting optimal development, the problem goes beyond the perceived denurturant actions of a minority of parents. It resides, rather, in the professed incapacity of a majority of parents of young children to move upward in the ODND to systematically promote growth in the intellectual, valuing, ethical and spiritual dimensions of a human being. It is a disturbing thought that a majority of children are born today in circumstances that can only be described as “inauspicious” insofar as their prospects for their fullest possible development are concerned.

The most obvious remedy is to inculcate the attitudes and skills of nurturance from the earliest years, to make their continuing development a core part of the school curriculum, and to define and encourage nurturance standards in all facets
of adult life. This is a monumental task, perhaps only addressed on an intergenerational time scale. It is far from silly to think of a Gross Nurturance Product for any human group—the total amount of nurturant action in that community, as calculated from scales derived from ODND schemas. This would be a highly speculative and controversial index, at least until human groups have acquired experience in conceptualizing and quantifying nurturance.

But we could almost immediately initiate nurturance-enhancing actions by applying the strategy proposed for moving through the ODND—moving as far to the right and as far up through the levels of being as the situation allows. As an informative example we may consider the progressive evolution over an individual’s life of the schema associated with personal safety.

Most programs for parents of very young children contain a piece on Creating Safe Spaces. Parents are advised to walk (or crawl) through the space through which the child is likely to move as soon as he is mobile, noting and removing any potentially hurtful objects and material. In effect, the parent herself enacts for the child the first step of a simplified safety schema. Then as soon as possible the parent encourages the preschool child to think about personal safety for himself, progressively teaching him a child’s form of our risk management schema. As shown in the Appendix, this schema can be reduced to a memorable ditty.

This kind of desirable move toward taking more potent actions to stimulate higher order dimensions can be traced with other examples across the ODND. Having a meal can be little more than chewing and swallowing, physical actions to relieve uncomfortable gut sensations. But identifying the elements of the meal and how they were prepared adds an intellectual activation to the experience. If the food was prepared specially for its consumers, values come into play. Principles come
to mind if thought is given to the nutritional standards met by the meal, or to how to make best use of leftovers. And the religious usually activate their spiritual dimension at mealtime by recalling and giving thanks to what they consider the source of all living things. If the human dimensions are activated from the innermost outward by reversing the activations proposed above, then a meal becomes an experience of positive outflow in which the positive feeling each delivers cumulates to the final sensory delight in smelling and tasting the food.
IDEAS TO REMEMBER FROM THIS CHAPTER

Once again we start with the reminder that our book is cumulative, so that certain parts of the content of each chapter must be retained in memory if following chapters are to be fully meaningful.

1. Human beings have to become skilled in the five generic tasks, incorporated in the Optimal Development Nurturance Matrix (ODND) that are prerequisite for promoting optimal development. Protecting from development-retarding hurt, the far left column in ODND, can be subdivided into four subcomponents when this is useful.

2. As a culture we try to foster task competence by providing “know that” and “know how” information, the latter taking the form of procedures (also called rules). Sometimes these are too general to give specific guidance at the point of action. But in attempting specificity we by necessity increase the number of rules, rapidly proliferating them to the extent (as in safety rules) to which no one could remember them—and they actually become an irritant.

3. Our proposed solution is to create a general procedure, called a schema, for engaging any important kind of task, the detail of whose steps can be varied from situation to situation. Together with an ongoing reading of the situation in which it is currently being applied, it allows us to create the best specific procedure to be followed at the point of action. This basic schema is then incorporated as the planning phase of the model for intelligent self-direction, and this more comprehensive strategy is called “a mental model” for the process in question. In the ideal, the schema and mental
model would also apply to every level of being—a huge economy in itself.

4. A group can construct its own schemas/models for ODND tasks by recalling various successful experiences in carrying out the process involved and synthesizing (through alignment, generalization and augmentation) the steps that were involved. There is considerable payoff in doing this, both in terms of group bonding that comes from sharing life experience and the sense of power and confidence in addressing problems that the product yields.
APPENDIX TO CHAPTER 4

THE PRESENT STATUS OF SCHEMAS AND MENTAL MODELS FOR ODND TASKS

In this Appendix the current mental models for ODND tasks are organized under the four components of intelligent self-direction, as follows:

1. The Goal with regard to the generic task in each ODND column can vary in its comprehensiveness or the level of aspiration it embodies.
2. The Plan is a listing of the elements of the schema, and their further elaborations, required to achieve that level of goal.
3. In the Implementation phase, the articulated schema acts as a procedure generator that, together with an ongoing monitoring (reading) of the situation, tells us what actions to perform from moment to moment—i.e., what values to assign to components of the schema.
4. In the Reflection on Action phase, each step of the Implementation is reviewed, along with the result, and a conclusion is reached about what components/values may need to be changed or added to get a better result. For example, the original Goal may have been overambitious or the Plan flawed.

Because essentially the same schema elements appear in the Implementation and Reflection on Action phases for all schemas, we have not shown all the specific details for every schema.

The format for the presentation of the models is that the components will be listed first with matching commentary to follow. From the many things we could say about each model we will speak primarily to (i) the main features or components...
of the schema; (ii) the level of complexity at which the model is presented, and what would constitute more/less complex forms; (iii) how well the model appears to apply to levels of being other than the physical, and (iv) our hypotheses about how the earliest/simplest forms of the model could be introduced to the young.
1. RISK MANAGEMENT

Goal
1. Maximize net expected growth support for upcoming event/occurrence

Plan
2. Envisage intended action-in-space
   2.1 Identify components of process to be undertaken
   2.2 Envisage space in which process is to be undertaken

3. Determine expected benefits
   3.1 Locate hoped-for benefits for self/others (in space) in ENM terms
   3.2 Estimate likelihood that benefits will actually occur
   3.3 Combine 3.1/3.2 to get “expected benefit”

4. Determine expected costs
   4.1 Identify possible hurts to self/others
   4.2 Estimate likelihood that hurts will actually occur
   4.3 Combine 4.1/4.2 to get “expected hurt”

5. Make preliminary judgment about expected net benefit
   5.1 Combine 3.3/4.3 to get “expected net benefit”
   5.2 Determine if this is large enough to proceed. If YES, proceed to implementation. If NO, proceed to 6

6. Try to increase net expected benefit to acceptable level
   6.1 Increase magnitude/probability of potential benefits
   6.2 Decrease impact/probability of potential hurts (e.g., by protecting against)
   6.3 Recalculate net benefits
   6.4 Repeat 6.1–6.3 until satisfactory net expected benefit,
then proceed to implementation. If not possible to foresee satisfactory expected net benefit, cancel intended occurrence/event.

**Implementation**

7. Identify safe haven in space (place where hurt least likely to occur)

8. Modify execution of process as required
   8.1 Begin to carry out process and monitor for impending hurt
   8.2 Adjust process to head off impending hurt

9. If required, cease process and retreat to safe haven

**Reflection on action**

10. Review the completed experience to determine what was learned
    10.1 Estimate the realized net benefit
    10.2 Determine what aspects of process need upgrading to increase net benefit
    10.3 Determine what aspects of generic strategy need improvement to reduce net hurt

11. Communicate to others what was learned in 10.2/10.3

The main components of this model were developed over several phases in which its goal was progressively elevated. Because the authors were involved in a project to stimulate the development of very young children the model was first named “Creating Safe Spaces” and described the protective actions a parent would take as the young child moved outward from his crib to the different rooms of the house, then to the yard, the neighbourhood and other places his parents would take him.
When we envisaged the child taking over this strategy, it seemed better named “Safety-Mindedness”. But when it was concluded that parents of young children were probably overprotective on average, and especially with girls, the emphasis shifted to “Risk Management”, intimating that we are not trying to eliminate potential risk, but rather that we should balance risk against benefit—in many cases increasing risk when the magnitude of potential gains warrants.

As a society we have not given anywhere near the same scrutiny to protecting the systems involved at other levels of being. Nonetheless, the main components would seem to hold at a first glance. For example, although we are reluctant to look at things this way, a teacher who requires students to use an inadequate intellectual strategy (such as the five paragraph “position” essay) plants in the student’s mind an impediment to mature reasoning—and these are intellectual hurts from which immature students need protection. Similarly, many parents would be concerned that the peer group could impair or distort their teenager’s values and principles, and some would enact the protective steps in the strategy.

Many groups, including teachers, try to use ditties to inculcate the first outline of the risk management schema in the learner’s mind. The most common one employed over the past half century reads:

“Stop, look and listen, Before you cross the street.
Use your eyes, use your ears, Before you use your feet.”

Given the previous discussion about the need for specific procedure generators, we prefer a ditty that links more directly with the components of the schema. In two parts, it reads:

“Where am I going? How will I get there?
What could hurt me on the way? How will I take care?”
“Where am I going? What will I do there? What could hurt me at that place? How will I take care?”

If the utterance of this became habitual, even the four-year-old, on coming to a curb, would know that cars pose a danger, and that he should make sure (by looking and listening) before he starts across the street that none are coming. Thus, even this primitive schema performs its function of generating a specific procedure at the point of action.
2. MEETING BASIC NEEDS

Goal
1. To maximize positive affect while meeting basic needs for all levels of being, within a designated time interval

Plan
2. Identify specific content of generic needs for each level of being: kind/amount of nutrients for use by system; kind/amount exercise of systems; kind/amount of rest; strategy for elimination of harmful (development-inhibiting) wastes
3. Schedule need-meeting activities into overall plan for designated time interval

Implementation
4. Adapt timing of planned need-meeting activities in service of direct development-supporting activities (e.g., temporarily delay lunch if important learning is taking place)

Reflection on action
5. Assess how well needs met
6. Identify changes to be made in 2, 3 and 4 in next occurrence
The basic components of the schema for meeting the needs of living systems are: exercise them (activate them); provide them with nutrients (from which they get energy and materials for reproducing themselves); give them periodic rest, and eliminate the harmful by-products of their operation (such as wastes and poisons). The four components of this schema apply with minor modification as well to mechanical systems, such as automobile engines.

In the concluding section of this chapter, we show how the needs-satisfying schema makes sense at levels of being beyond the physical. In general, the ideas that you must “use it or lose it” and “we need a break” seem to apply at all levels of being—even though only a tiny proportion of the adult population appears to understand this.

We can recognize several potential levels of sophistication for such a schema. Minimally, system needs would be met to a degree that they would remain operative and (possibly) healthy. A higher level, reflected in the model presented, adds to this getting the most satisfaction out of meeting basic needs. To get beyond that, we need to think through in more detail what is only hinted at in the Implementation component of our proposed model. For example, many people who do serious intellectual work have found that physical exercise can inhibit thinking when they are analysing or focusing on the detail of a problem, but can facilitate thinking when a stage has been reached at which an integration of ideas is required and the subconscious has to take over (often called “incubation”).
3. DEALING WITH INJURY AND ILLNESS

Goal
1. Minimize disruption of optimal development-support processes while recovering from injury and illness

Plan
2. Stop further injury/illness at place of occurrence
   2.1 Remove injuring element, if still present
   2.2 Administer first aid
   2.3 Protect “wound” from injuring element
3. Determine who is needed to assist recovery
4. Perform specialized remediation services
5. Initiate/support healing process
   5.1 Cease normal activity
   5.2 Focus/direct energy on/to healing system/process
6. Recomence development-supporting activity at other levels of being

Implementation
7. Remove to healing space
8. Determine needed post first-aid treatment
9. Initiate required treatment
10. Adapt need-satisfying strategy as required by illness/injury
11. Initiate/monitor engagement of tasks 4, 7, 8
12. Monitor ongoing recovery and adjust engagement of task 10
13. Initiate 6 as soon as possible

Reflection on action
14. Determine implications for strategy
   14.1 Determine effectiveness in minimizing time lost
   14.2 Determine needed changes in strategy
15. Determine permanent effects that need to be dealt with
As can be seen, the main components of the plan are almost commonsensical: remove the injuring elements; give first aid; determine needed treatment (may require specialist); remove victim to healing space, and engage in healing process until recovery sufficient to re-engage normal/modified life. This would be thought by most people to constitute “getting a person back on her feet”.

We believe that the schema is congruent with what passes for learned opinion on recovering from illness/injury at levels of being beyond the physical. For example, mental illness is often brought on by damage to levels of being, such as overwhelming intellectual stress, the severe violation of one’s values or principles and the resulting loss of self-esteem, and the loss of a sense of connection, hence of a purpose for getting through the lived day. A currently prestigious therapy called “psychosocial rehabilitation” proposes as therapy that the individual be taught life skills and be helped to use them to generate the normal satisfactions in life—an almost perfect articulation of the action proposed by positive outflow therapy.

As for imprinting the first intimations of this schema, young children are commonly advised about where they should go if they are hurt—for example, to a neighbour with nursing skills if their parents are not present when they suffer a physical injury. Similarly, a parent is likely to say to a child who, following an injury, is lying in bed and feeling sorry for himself, “You’ll feel better if you do something”.

4. PROMOTING DEVELOPMENT THROUGH FOCUSED LEARNING

Goal
1. To bring about identified learning outcome

Plan
2. Identify intended learning outcome by type and level
3. Identify generic teaching strategy for achieving outcome
4. Identify needed human/material resources
5. Identify actions to be taken at each step of instructional cycle:
   5.1 Motivate new learning
   5.2 Initiate new learning
   5.3 Consolidate new learning
   5.4 Apply new learning

Implementation
6. Initiate steps 5.1–5.4
7. Monitor ongoing learning and adjust steps 2–5 as required

Reflection on action
8. Assess degree to which intended learning outcome was achieved
9. Identify implications for needed change in approach
Although these components may seem self-evidently necessary, only a small proportion of attempts to teach in human groups perform them satisfactorily. For example, early years educators tend to start with activities that they know from experience children will enjoy, and only then hypothesize all kinds of learning outcomes they think might follow from such activity. At the other end of the age scale, most adults try to teach task performance by simply “telling about” or “telling how”—i.e., not consciously thinking about the kinds of learning outcomes intended or the actions by which they are best achieved.

The stated goal of our schema is approximately what the professional, school-based educator would aim for—achieving those transitions in what children should know and be able to do mandated by the school curriculum in a manner that is as enjoyable as possible for the learners (hence for the teacher). At a higher level, the goal would be that every formal or informal learning encounter makes its largest possible contribution to the learner as a fully functioning human being. This ideal would require much front-end analysis to determine what the most critical transitions would be.

The question of whether the term “teaching” should be applied to the attempted inculcation of values, principles and self-transcendent beliefs are matters of fine academic and philosophic dispute that rest, ultimately, on one’s concept of “teaching”. For example, in the theological writing of one major religion, faith is said to be “caught not taught”—something to be accomplished by having children participate in adult religious services. Similarly, a child might internalize their parents’ self-transcendent leanings (for example, their support of an endangered species) by active participation in activities involving it. Nonetheless, we believe that earlier and more lasting results will be achieved when focused efforts are made to foster the acquisition of critical transitions.
5. EMPOWERING TO CONTINUALLY UPGRADE PROCESS/SYSTEM

Goal
1. To continue to do important things better (i.e., in a way that better supports optimal development)

Plan
2. Identify components of process and present level of engagement
3. Determine (by comparison) which components have been done differently in better enactments of process
4. Determine the variable(s) in the components on which they differ, and the correlation between variable values and desired outcomes
5. Determine by experiment if relationship is causal
6. Decide if the benefit of assuming optimal value of variable is worth the cost
7. Determine implications for future conduct of component(s) of process

Implementation
8. Seek cases for step 3 and 4 and enact
9. Use best approximation to controlled experiment that is possible in 5

Reflection on action
10. Make rational cost/benefit decision to determine if/what change is to be made in process
11. Make and commit to memory any enlargement of mental model for the process that is suggested by 10
In the minimal execution of this schema, “better” usually means improvement in the product (effectiveness) or in the process (efficiency). But in the ideal, “better” would mean supporting PIDAS more fully. We could never know what this means completely, but we could progressively take into consideration additional consequences of executing the process as we proceed outward from ourselves to others who are somehow impacted by it. For example, upgrading the schema for a manufacturing process might make it more efficient and, therefore, better for the company using it. But because it could also lead to a loss of jobs by the workers it might not be considered, overall, “better” for the community.

There seems no reason in logic why this schema, which we have named Doing Important Things Better (DITB), could not be applied to any ODND task or be focused on any level of being. Many people, for example, “experiment” with different religious affiliations (processes) over their lives until they find one that gives them the most satisfaction, security and sense of fulfilment.

As for first intimations of the schema, when a child tries to perform a procedure but fails, he will almost invariably be exasperated, frequently flying into a rage and lashing out physically. The attentive parent who interjects “Well, when something doesn’t work we try to do it in a different way”, while ensuring that the different way does work, is inculcating a first component of the schema. And over time progressive enlargements will include having the child observe how older/more successful people perform a task, determining what they do differently, then trying it out for himself.
IN PREVIOUS CHAPTERS we identified five central dimensions of human growth, and the schemas employed in fostering their fullest possible development. The present chapter explains why we need to identify potential growth paths for human dimensions, describes a strategy for constructing what we call growth schemes, and applies it to the human dimensions and ODND schemas and the engagement of major life focuses. A final section explains the emergence of the growth scheme concept as an attempt to overcome weaknesses from earlier growth-tracking notions of developmental benchmarks, and stage development theories.
Why We Need Descriptions Of Potential Growth Paths

We want valued attributes of human beings to grow over individual lifetimes and between generations. In the physical dimension, much of our growth of our physical systems (e.g., circulatory system) occurs by the process of maturation and requires only that we protect the systems we want to grow, provide for their basic needs, and help them recover from illness and injury. To deal responsibly with these aspects of human development we don't require a more detailed map of growth than a rough idea of the main developmental milestones.

However growth at higher levels of being is strongly influenced by the social environment, particularly that planned and structured environment that is created by teaching. Growth-focused teaching is most effective when it engages an individual at his present level of development in a particular attribute and helps him make the transition to a higher level. To systematically promote growth in a particular attribute over the long run, then, we need a description of the set of possible growth advances or transitions that cover the time period during which we will be making this attempt.

We can get a sense of the importance of such detailed growth descriptions by reflecting on our own school experiences and contrasting the outcomes when we were subjected to programs in which they were present with the outcomes when they weren’t. As an outstanding example of where growth schemes were used, we may recall how we were taught to do arithmetical calculations, such as long division. This skill was advanced in very small steps over the elementary grades by a teaching program that gradually increased the size of the dividends and divisors we had to cope with. A detailed plan for those increments allowed a succession of our teachers to engage us at the level of skill we had achieved when we entered their classrooms, and to move us forward
from there. As a result, virtually everyone who graduated from elementary school could perform to a satisfactory degree the long division tasks called for in everyday life.

For contrast we might consider the promotion of our skill in decision-making, one of the most frequently and highly touted intellectual skills. Here, without a defined growth path, there was no defined increment of expected growth from grade to grade, and research studies suggest that there was very little growth in the logic of student decision-making across whole school divisions.¹

Growth descriptions are not only essential to those charged with teaching but more generally to anyone interested in human advancement. For unless we have growth measures for those qualities that enter into our shared conception of human advancement, we have no way of monitoring human progress over the long run. The danger here is to make the questionable inference that continuing gains in our material prosperity indicate genuine advances in the development of the human species. This danger is present at every level of social integration, including the family. How can we know whether the quality of our marriages or our relationships with children or nature are advancing or declining unless we have some kind of map of possible levels of desirable qualities to measure ourselves against?

Worse consequences of the lack of a sensible growth map can be found in many areas of human activity. As a particularly distressing example for English literature enthusiasts, the only ostensible growth plan for our instruction on Shakespeare’s plays was to expose learners to a new play in each of the secondary school years—anticipated growth being equated, apparently, to more exposure of the same kind. For an overwhelming majority of learners, however, what was actually growing was dislike for this kind of exposure—resulting in a life-long aversion to what
is widely regarded as one of the most beautiful and compelling constructions of our language.

**For What Human Attributes Are Detailed Descriptions Of Potential Growth Important?**

The short answer is that growth descriptions would be critical for any human attribute whose rate of development we want to stimulate beyond maturation. We could identify some general categories of such attributes by recalling the conception of a fully functioning human being: as a person who employs his various levels of being while enacting the ODND schemas to engage his essential life focuses. It follows that a first general category of growth descriptions would be those qualities that make up the physical, intellectual, valuing, ethical (principle using) and spiritual levels of being. A second category of needed growth would be for using the ODND schemas. And a third class would be performance in engaging the dominant focuses of life: relating to others, work and nature. Later in the chapter we will organize our illustrative examples under these headings. *In one important way these three aspects of growth will be cumulated, in that the individual brings attained levels of being into his existing ODND schemas as they are brought into his interaction with a life focus.* If this sounds complicated its meaning will become clearer as the chapter proceeds.

The growth schemes we need to construct will vary in complexity depending on the time framework for our planned intervention and the attribute we are hoping to develop. At the simple extreme these attributes can be components of a level of being—such as washing our hands or catching a ball for the physical dimension, or doing arithmetic calculations or reading print for the intellectual dimension. The deliberate stimulation of growth in these attributes is likely to take place within a few years. At the other extreme, they can be very complex attributes...
such as having relationships with others, performing an income-earning job, parenting or even acting as a fully functioning human being. These involve very complex processes in which growth occurs over broad life periods. At both extremes of complexity, and for the myriad intervening cases, society expects to see, and tends to reward, personal growth.

**Growth Schemes: Building On Intuitive Notions Of Growth**

We have made the case that detailed growth descriptions are essential to the effective promotion of valued human qualities. But all human beings at some point form the intention to increase the knowledge or skill of others, or to enlarge their values—in other words, to act as growth promoters. So we need a method for readily constructing such growth paths that is congruent with human intuition and therefore capable of being carried out by the great majority of mature people. And because by common understanding parents must be “the child’s first and foremost teacher”, we quite naturally look at what growth-oriented parents do to plan and monitor the growth of their children for guidance.

While getting a detailed map of potential growth steps may sound like a complex matter, parents already possess and act upon at least an intuitive understanding of the process for doing this for physical skills. Consider how thoughtful parents meet their responsibilities for getting their young children to take care of physical needs, such as washing their hands after using the toilet. To start, the parent who reflects on how he washes his own hands knows that this process can be broken into components or phases, such as: (i) applying soap; (ii) scrubbing; (iii) rinsing; (iv) drying; and (v) tidying up. Moreover, the parent knows that each of these components can be carried out at different levels
of maturity. For example, in regard to the soaping component, we can: (i) soap the front (palm side) only; (ii) soap the front and back; (iii) soap front, back and between the fingers; (iv) soap front, back, between the fingers and wrists (which may also have touched the toilet).

When the ideas of “components of a process” and “levels of carrying out components” are put together, we have what the authors have for more than four decades called a “growth scheme”. A parent-constructed growth scheme for hand washing is shown in Fig. 5.1. The content of any column in the growth scheme is called a “growth strand”.

This particular growth scheme guides the thoughtful parent’s attempt to get the child to wash his hands at increasingly more mature levels. At first, the parent carries out the process on the child’s hands for the child. But as soon as possible, and likely in the first year of life, the parent begins to carry out the process with the child—perhaps encouraging the year-old child to rub his parent-soaped hands together in the scrubbing phase of the process. Then, bit-by-bit, the parent deliberately encourages the child to take over the carrying out of other components, and to perform already engaged components at higher levels. Which “bit” the parent encourages on any hand-washing occasion will depend on a sensitive reading of the child’s readiness to progress. Thus there can be many different paths through a growth scheme. When classroom teachers deal with large groups of students, as they have done traditionally in teaching arithmetic skills, for example, the sequence of intended growth steps (the particular path through the growth scheme) has been laid out in advance in the arithmetic textbook. This path is then sensibly called a growth plan.

Growth schemes lie at the heart of quality instruction and are quite different in structure and purpose from “developmental benchmarks”. A set of developmental benchmarks is a set of modal ages at which young children are able to perform a sampling of
fine and gross motor skills, such as: speak sentences containing a certain number of words; rote count; and act cooperatively in social situations. For example, in one benchmarks system widely employed in our region, the only reference to hand washing is in the gross motor section for children aged four-and-a-half to five-and-a-half, where it states that children of that age can “wash their hands and face”. When we try to determine where the described action fits in our growth scheme, we can see that what the description conveys is far more ambiguous than we
would have anticipated—in fact, so ambiguous as to be virtually useless as a guide to what the child’s next growth step in hand washing might be.

**The Principle Of Development Inherent In Growth Schemes**

The basic structure of a growth scheme reflects what in Chapter 1 was called the Principle of Ideal Development in Advancing Systems (PIDAS), where a system may be either a living organism or a man-made system. This principle says that systems advance ideally if their parts continue to grow as they come together to form a larger and more powerful system. We can see this principle in operation within each human dimension, within the individual ODND schemas, in the engagement of life focuses and, potentially, between any two entities that the mind can conceive as systems.

As an easily understood example, when two individuals—each thought of as a system—become a couple, they have in effect formed a larger system that enacts a complex interaction called “courtship” or “marriage”. In a healthy relationship, each partner continues to grow, as does their process of interaction. If they have a child, they become the still larger system called a “family”, which has an even more complex process of interaction.

PIDAS occurs spontaneously within and between healthy living systems, provided basic system needs are met, but its working can be accelerated or retarded by many internal and external forces. Returning to our hand washing example, the child’s progress was seen to follow PIDAS in that each step forward involved performing one of the component processes at a higher level, or adding a new component.
A General Strategy For Constructing Growth Schemes

The existence of PIDAS suggests that we ought to be able to construct a detailed growth path for any human activity that we can describe as a process, i.e., as a set of general actions that produce a consistent result. So when we say that we are trying to stimulate growth in a human dimension, a deeper understanding is that we are in reality trying to enlarge or strengthen some process that is activated when the dimension is engaged. Judging from our hand washing example, the general strategy for constructing a growth scheme for a process is to:

i. Lay out the components in the mature execution of this process,

ii. Describe a sequence of steps of increasing maturity/sophistication for carrying out each component.

In the next section of this chapter, we will test this strategy with human attributes in each of the three dominant categories of growth schemes mentioned at the beginning of this chapter.

We can expect that problems will arise as we proceed with more demanding cases. For starters, it will not always be the case that the levels of performing a component are as self-evident as they were for hand washing, where it is simply a case of adding one new action at each successive level. More difficult with very complex processes, such as a marriage, will be to construct a description of the components of the process. We may hope and expect that CSHDE concepts will be of great assistance with these problems.

Growth Schemes For Dimensions of Development

We now try to apply the strategy for constructing a growth scheme to the first general category of growth schemes, for individual dimensions. We recall that the fuller understanding
is that we are constructing growth schemes for processes that are activated when dimensions are engaged.

**Physical dimension**

Hand washing in its ordinary, everyday execution is essentially a gross motor skill. If we want to growth scheme a more complex skill we might try catching a ball. Carrying out step (i) of the strategy: in the most advanced form of catching a ball, a professional “fielder”, at the crack of the bat, runs to where his body is in reach of the moving ball, brings at least one hand in contact with the ball, and grasps it. In its simplest execution of ball catching, the young child grasps a ball thrown by a parent into his open, cupped hands.

To complete the strategy, we have rapidly brainstormed some plausible levels of performance for each of the components—what would be commonly understood as advances in skill—as shown in Fig. 5.2.

The authors recall that we had a scheme like this in mind when we taught our own children to “play catch”. And even as adults, our recreational/aerobic playing catch tends spontaneously to move upward in this growth scheme, with efforts to “show off” being most conspicuous in the second component of the process.

This example illustrates another idea that we have long associated with our growth scheme work. Reflection on life experience suggests that the level at which an individual can perform in a growth scheme depends on the values taken by a number of external factors that we call “correlated dimensions”. The most obvious one in ball catching would be the speed at which the ball is moving. A young child can only execute his cupped hand strategy for a ball moving at a very slow speed. A fielder in baseball can execute the highest levels of catching with balls moving in excess of 100mph. When we actually try to teach
someone to play catch, we would first determine a speed of ball movement appropriate to the learner’s age and circumstances.

If fielding a ball was more than a playful skill, of significant value to no more than the tiniest minority, and was therefore worthy of a serious effort of growth scheming, we could add “speed at which ball is moving” as a fourth component of our growth scheme.

**Intellectual dimension**

Our first application is to decision-making, which we give special attention because of its importance and its more complex illustration of PIDAS. As explained in the previous chapter (see Fig. 4.1), decision-making is seen to have five component processes: (i) determining potential courses of

**FIGURE 5.2** A growth scheme for fielding a ball.
action (alternatives); (ii) identifying criteria for judging the merit of (i.e., rating) alternatives; (iii) weighting these criteria; (iv) obtaining evidence that allows us to make that rating; and (v) summarizing weighted ratings to decide which alternative is best.

To follow the procedure for developing a growth scheme for this schema we first write the components of the process as column headings, as we have done in Fig. 5.3. The component processes in this case are implied by the criterion chosen to judge their maturity. Under each heading we think of increasingly more sophisticated ways of carrying out that process, beginning with what a child might do, and working up to the most mature adult behaviour we know about.

Thus the decision-making growth path maps the operation of PIDAS in that the learner grows in his decision-making as he carries out a component process in a more advanced way (enlargement of component), deals with an additional component, or organizes the resulting elements in a more

<table>
<thead>
<tr>
<th>RANGE OF ALTERNATIVES CONSIDERED</th>
<th>KIND OF CRITERIA EMPLOYED</th>
<th>KIND OF EVIDENCE EMPLOYED</th>
<th>CHOICE-MAKING PROCEDURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>One personal preference</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Common set</td>
<td>One reason</td>
<td>Undocumented claim of consequence</td>
<td>Preponderance of good/bad points</td>
</tr>
<tr>
<td>Additions to common set</td>
<td>Good/bad points</td>
<td>Claim documented by experience</td>
<td>Preponderance of favourable criteria</td>
</tr>
<tr>
<td>Alternatives constructed as compromises</td>
<td>Self-favouring criteria</td>
<td>Claim documented by objective evidence</td>
<td>Best numerical score on weighted criteria</td>
</tr>
<tr>
<td></td>
<td>Criteria includes interest of all stakeholders</td>
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</tr>
<tr>
<td></td>
<td>Process-generated classes of criteria</td>
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</tbody>
</table>

**FIGURE 5.3** Growth scheme for decision-making.
sophisticated way. Two levels in this growth path that clearly demonstrate those aspects of growth are shown in Fig. 5.4.

Several critical transitions can be detected in our potential growth scheme for decision-making—“critical” in the sense that failure to make them would constitute a serious arresting of development. An obvious first one is to go from believing that there is but one possibility (alternative) to acknowledging more than one, a transition easily made by a one-year-old child who is regularly held up to the cupboard and asked to point to the breakfast cereal he wants that morning. A later growth transition, achievable by four-year-olds, comes when the child suggests that his initial choice might have some “bad points”, and in this declaration demonstrates that he is bringing a larger array of “values” to bear on his decision.

But perhaps the most critical transition occurs when the child’s decision-making jumps from a good points/bad points logic to one in which all alternatives are judged against the same criteria. This is the basic minimal standard for decision-making about public issues—such as which of three potential routes the new highway should follow—and is shown in the bottom diagram of Fig. 5.4. However, close observation of the work of many committees or groups indicates that their decision-making only rarely reaches this level, and that choices are usually made on a “preponderance of good points” basis.

**Growth schemes for valuing, principle using and self-transcending dimensions**

We group these together because we think they can all be approached from the common perspective of the Optimal Development Nurturance Domain. And because our growth scheming work over the years has been predominantly in the intellectual dimension, we regard these as early efforts that are likely to be much further developed with more experience.
LEVEL 1: GOOD POINTS/BAD POINTS LOGIC

<table>
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<tr>
<th>A</th>
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<th>C</th>
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PREPONDERANCE OF GOOD POINTS

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<th>A</th>
<th>B</th>
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<td>2</td>
<td>–4</td>
<td>–2</td>
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LEVEL 2: CRITERIA LOGIC

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<tr>
<th></th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
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<tr>
<td>C1</td>
<td>i linking information</td>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>C2</td>
<td>i</td>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>C3</td>
<td>i</td>
<td>i</td>
<td>i</td>
</tr>
</tbody>
</table>

SYNTHESIS

|   | Σ           | Σ           | Σ           |

FIGURE 5.4 Two levels of decision-making matrix.
Descriptions Of Processes

Our strategy for constructing a growth scheme requires that we first identity the process referred to by the attribute to be growth schemed. So we would have to ask: what are the steps or components of the processes of valuing, of using principles and of carrying out a self-transcendent relationship? In the strategy for identifying processes described in Chapter 4 we start to determine this by looking to life experience to identify successful instances of our use of that process.

Valuing

Common activities to which we attach valuing language are:

i. Valuing our association with someone or something (colleague, friend, family member, interaction with nature)

ii. Valuing such positive personal states as good health, optimism, persistence and creativity

iii. Valuing such growth supports/resources as financial aid, encouragement and assistance

iv. Valuing someone’s opinion/judgment

By analysing these examples we can say that the valuing process appears to have the components (i) initiating contact with something that is valued over a period of time; (ii) interacting with the valued thing in a way that nurtures one or more levels of its being; while (iii) simultaneously acting to maintain the valued thing’s capability to continue nurturing himself and the initiator. In other words the individual values those things from which he anticipates that he will get both nurturance and associated positive affect by engaging them.

From this perspective a person should come to value things that confer any of the component actions of the ODND—such as protection from hurt, meeting needs, and teaching—and seek out life situations in which these processes are operative.
Because of their central role in nurturance, we can think of such processes as our primary values.

Looking to the third dimension of the ODND, our secondary values are the resources that we perceive as facilitating the execution of these ODND processes—for example, human qualities such as those mentioned in point (ii) above, as well as the material and financial supports of point (iii).

**Principles use**

Everyday discussions occasionally use direct principles linkages, as when someone says, “I do it as a matter of principle.” In addition, principle-use is implied, although not spelled out, in the more widely used expression, “It’s just the right thing to do.”

Three common situations in which the latter links to principles are made would be:

- The community comes to the aid of a family that has lost all its possessions in a fire.
- We give a certain proportion of our income to charity.
- Parents treat their children equally, or make sacrifices to send them to university.

These examples suggest that a person is employing a principle when (i) a type of situation arises in which his nurturance resources could be usefully shared, and (ii) he consistently uses a describable rule in such situations for assigning these resources among himself and others.

**Self-transcendence**

In our culture specific self-transcendence-linked language is virtually non-existent in everyday conversation. Nonetheless, most would agree that a self-transcendent process is at least hinted at in the following situations:

- A person, in religious practice, claims to be in communication with (receiving help from, obeying) a higher being.
• We say that we feel “connected” to our family, our community, nature, or humanity at large.

On analysis of these expressions, a person can be said to be engaged in a self-transcendent connection with an external entity that has greater and more enduring nurturing capability than himself when he is the recipient of its nurturant actions and in return meets its expectations for him. Examples would be the reciprocally nurturing relationship of an individual to the family, community, cause or divine Being.

**Levels Of Engaging Components**

The next step in the strategy is to make a two-dimensional chart with the dimensions of development as column headings and the listings under each representing increasingly higher levels of engaging them. The two common dimensions in the valuing, principle using and self-transcending processes are the degree of coverage of the ODND in the engagement and the entities to which it is applied, moving outward from oneself.

So what will we have as our first description of growth in values, principle use and self-transcendent behaviour? An individual’s values grow as he voluntarily engages additional ODND actions, or brings them to bear on higher levels of being. His principles use grows as his rules for right behaviour (e.g., sharing nurturance resources) are applied outward to things at increasingly greater remove from himself. His self-transcendent growth is reflected in a similar movement in his sense of connection outward from his immediate family toward a supreme power (being or principle).

This centrality of the ODND in thinking of growth in valuing, using principles and having self-transcendent relations, forecast at the beginning of this section, is really not surprising. In respect to values, humanity could hardly advance unless all levels of being were valued (that is, activated and grown).
It follows that all the nurturant actions necessary to make this enactment must also be valued.

The sincere use of ODND can also enact the most generic principles of conduct that our civilization has so far enunciated. For example, the Golden Rule to “do unto others as you would have them do unto you” sensibly means that we should employ the same parts of the nurturance schema, and to the same degree, in our treatment of others as we would want them to use in their treatment of us.

Finally, in seeking self-transcendent connections we search for the agency, process or being that is able to input into the largest set of ODNDs of which our own is a member. This normally entails establishing a succession of self-transcendent connections that move outward from the family to our school, our community, our cultural group… to what we understand to be the most comprehensive nurturance giver in our universe.

The upshot of these analyses is that levels of performance in growth schemes for valuing, using principles and self-transcendence will be highly related through their connection to the ODND. The implication is that growth in these attributes will flow simultaneously from the systematic development of the use of the ODND, which we sketch in a later section of this chapter entitled *Growth Schemes For Very Complex Tasks*.

**Growth Schemes For ODND-Linked Schemas**

Because schemas are intellectual constructions, the growth schemes for ODND-linked schemas might have been treated earlier in this chapter in the intellectual component of the growth schemes for levels of being. However, given their special CSHDE status, we decided to treat them separately.

The components of the ODND processes to be growth schemed were provided in Chapter 4. For illustrative purposes
we have growth schemed a slightly reduced version of the risk management strategy, producing Fig. 5.5.

It is sobering to reflect that the risk management behaviour of many professional athletes seems to fall at what Fig. 5.5 terms the “child” level. That is, they use their bodies in ways that experience has shown are almost certain to lead to injury, in some cases of a permanent, life-crippling manner—such as brain damage in boxing and football. This shows the tragic consequences of the overvaluation of money, and of the overestimation of the likelihood of earning large amounts of it through the pursuit of violent sports.

**Growth Schemes For The Engagement Of Major Life Focuses**

Examples that fall into this category would include growth schemes for building relationships and for doing paid or volunteer work. If we think of a relationship between two people as a pair of ODNDs in interaction, growth in the interaction would be reflected by its engaging more nurturing functions (ODND columns), higher levels of being or both. Such a scheme readily generates a model for creating progressively more nurturant relationships, shown in Fig. 5.6.

**Growth scheme for doing paid or volunteer work**

A growth scheme for undertaking any job could be derived from the schema or mental model for that job. A succession of levels of engaging job schemas are suggested in the generic descriptions of occupational levels employed in industrial fields:
i. A labourer does not need to understand or enact the schema but provides some supporting service whose performance requires no special training;

ii. A technician knows and can perform efficiently a specific enactment of the schema (a procedure) for a component of the process, a performance requiring some practical training;

iii. A technologist understands the schema for a component of the process well enough to be able to make adjustments in the procedure when it fails, a performance commonly requiring a three year (Community College level) certificate;

iv. A professional (e.g., engineer) understands and can enact the schema for the larger process in a defined range of circumstances, a performance requiring a university degree;

v. One kind of specialist is a professional who has, in addition to (iv) the deepest current scientific understanding of the working of a component of the process and can repair its malfunctioning. He has training beyond the professional level.

We have never seen a description of expected growth in the performance of volunteer work, but by common observation volunteers seem predominantly to be assigned tasks that involve little training (i.e., are accurately, if unflatteringly, designated “labour”). A better use of volunteers, especially retired technicians and professionals, would allow them the opportunity to move upscale, and the more capable even making suggestions for upgrading the process.
<table>
<thead>
<tr>
<th>Envisage Potential Risks/Benefits of Intended Action in Location</th>
<th>Undertake Cost/Benefit Analysis/Decision</th>
<th>Reduce Risks by Protective Action</th>
</tr>
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<tbody>
<tr>
<td>--</td>
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</tr>
<tr>
<td>Ignores or misunderstands risks</td>
<td>--</td>
<td>Consistently, only while supervised</td>
</tr>
<tr>
<td>Underestimates/overestimates ability to perform without significant risks</td>
<td>Analysis/decisions err on the side of risk/caution</td>
<td>Uses mandated protections</td>
</tr>
<tr>
<td>Investigates potential risks for new actions and new locations</td>
<td>Rational analysis and decision to abort if risk too large or benefit/risk ratio too small</td>
<td>Takes best of known risk precautions</td>
</tr>
<tr>
<td>Identifies potential additional benefits from actions realizable in location</td>
<td>Undertakes several analyses to determine which combination of actions maximizes net expected benefit</td>
<td>Invents/secures additional safeguards for higher levels of being</td>
</tr>
</tbody>
</table>

**Figure 5.5** Growth scheme for risk management.
<table>
<thead>
<tr>
<th>INCREASE POTENTIAL BENEFITS OF ACTION IN LOCATION</th>
<th>MONITOR ACTIONS/IMPACTS OF SELF AND OTHERS IN LOCATION</th>
<th>REPORT EXPERIENCE SO OTHERS CAN PROFIT</th>
<th>DEVELOPMENTAL LEVEL</th>
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<tr>
<td>--</td>
<td>--</td>
<td>--</td>
<td>INFANT</td>
</tr>
<tr>
<td>--</td>
<td>Observe threats posed by others, but not by own actions</td>
<td>--</td>
<td>CHILD</td>
</tr>
<tr>
<td>Enhances the impact of intended actions</td>
<td>Retreats from significant danger</td>
<td>Complains against hurtful actions of others</td>
<td>JUVENILE</td>
</tr>
<tr>
<td>Where possible, adds activities of comparable development support</td>
<td>When faced with insurmountable risk, retreats to predetermined safe space</td>
<td>Gives unbiased report of happenings to authorities responsible for that location</td>
<td>MATURE SAFETY-MINDEDNESS</td>
</tr>
<tr>
<td>Plans for/resources additional high benefit activities in location</td>
<td>If threatened, enacts predesigned strategies that enable continuation of action</td>
<td>Identifies and works to bring into being, policies/regulations that reduce prevailing risks</td>
<td>MATURE RISK MANAGEMENT</td>
</tr>
</tbody>
</table>
Goal: To form, maintain and continually upgrade the quality of a personal relationship.

Plan
1. Initiate contact.
2. Appraise potential of a relationship in terms of shared values and levels of being potentially engaged.
3. Appraise potential of a relationship in terms of nurturance acts that could be carried out.
4. From 2 and 3 get a ‘vision’ of the potential association, and an overall feeling about the net positive affect it could deliver.
5. Make a cost/benefit decision to continue/discontinue, with the chief cost being your invested time.
6. Plan activities that utilize most common interests (i.e., predominant use of a particular level of being in undertaking a certain kind of nurturance in a particular context).

Implementation
7. Initiate planned activities.
8. Monitor ongoing reciprocal nurturance, and adjust activity as required.

Reflection on Action
9. Confirm/modify assessments made in 2 and 3.
10. Confirm/disconfirm decision made in 5.
   10.1 If decision is to maintain, plan more activities around current interests.
   10.2 If decision is to extend, plan activities that require a move right in the ODND.
   10.3 If decision is to broaden, plan activities that involve an additional context.
   10.4 If decision is to deepen, rethink activities as being initiated from deeper levels of being.

11. Recycle to Implementation

FIGURE 5.6 A mental model for creating progressively more nurturant relationships.
We can also profitably think of a growth scheme for use of the entire generic nurturance strategy. Indeed, we do this informally, as when we speak of one person or group being more or less nurturant than another. This is no idle speculation, but a very troublesome judgment that Children’s Aid Society agents have to make when they recommend that a child be removed from home A and put in home B.

Up to this point society has had neither a defined growth plan for human nurturing, nor a prescribed curriculum for moving through it. Only the most flagrant de-nurturant acts have been brought to the attention of public agencies and dealt with, usually by some form of punishment. It is reasonable, therefore, to suggest that the general level of nurturance among the adult population is nowhere near where it can and should be—and would be if nurturance skills were cultivated as systematically as computational or reading skills.

Life experience and common sense suggest that a person’s use of the ODND could grow in several important aspects:

1. *The portion of the ODND actually employed.* The current Ontario Child and Family Services Act requires parents to refrain from physical, sexual and “psychological” abuse, and to provide for the child’s physical and emotional needs. Judging from current estimates of the incidence of abuse and neglect, an alarming proportion of parents don’t achieve this minimal standard, even for the physical dimension. Surveys have indicated that the majority of parents feel they don’t really understand what a child’s cognitive, ethical and spiritual needs might be, let alone provide for them, nor do they know how to stimulate growth in any dimension other than the physical. Parenting has been practiced as an intuitive art, supplemented by custom and recollections.
of what was done by their own parents when they were children.

2. **Whom the ODND is applied to.** The circumstances of our existence in this world require that we nurture ourselves to a certain degree before we can effectively nurture others. But we are driven by internal forces to nurture outward from ourselves, first to our “loved ones”, including friends, then to other members of our communities… and this process can continue to the most remote (from us) reaches of humanity. But our investment in nurturing others naturally declines as we move outward, and for most people declines sharply beyond their immediate family and friends. But the fact that humans are capable of much more is demonstrated by the very few among us who give their lives to the betterment of people for whom they have no obligation or blood kinship.

3. **How effective our ODND-based actions are.** Most of us can do the obvious things in removing an existing physical hurt, meeting physical needs, and supporting healing for the physically sick and injured. But promoting growth in systems beyond what occurs by maturation alone usually involves something that is properly called “teaching”, and levels of proficiency in this quintessential human skill seem astonishingly low, especially among non-teacher professionals. For the great majority, telling equals teaching equals learning, the contrary evidence of research notwithstanding.

There can be a shadow or dark side to intended acts of nurturing that it is not considered politically correct to discuss. Very often one agency will fail to reinforce the level of behaviour achieved by the nurturing efforts of another, as when the school fails to require high levels of hand washing demanded in some homes.
Much more difficult to think about is the case where an agency's nurturance of a client takes time away from, and thus leads to a deterioration of, that client's relationship with someone else.

We can identify other factors that would influence the levels at which, on any occasion, our use of the ODND would depend. The most obvious of these is the personal cost—that is, what we have to give up from our own ODND to nurture another person. Most of us will give a small proportion of our left-over income to support a starving child in a third world country, and many will give up personal recreational or rest time for volunteer community service, but few would actually risk the hazards of going overseas to teach impoverished children the skills they need to have a better life—the potential personal cost is simply too high.

From this account we could conclude that a full description of levels on each of the proposed three main and one named correlated dimension for using the ODND would require a much more extensive treatment than we can provide here. So, in what follows, we sketch what seem plausibly to be seven major growth transitions in the use of the ODND that need to be carefully fostered, beginning from infancy and continuing into the parenting years. And for each level we speculate about values, principles and self-transcendent relations in play in the growing individual's psyche.

**Development of a primitive ODND**

The infant has to learn the boundaries of his physical self. Then he has to learn that living things outside himself have hurts and positive feelings as he does, and that it is “good” to create these good feelings, and “bad” to inflict hurt. This primitive nurturance schema, depicted in Fig. 5.7, can be inculcated in the first 18 months of life by an intuitively initiated process to be described in later paragraphs.
If this young child is securely attached, as that term is now understood in the psychiatric community, he values his primary caregiver in the sense of seeking her out and experiences her as the supreme and omnipotent nurturer in his life. His first ethical principle is captured in the rules “we don’t hurt things” and “we are nice”.

**Nurturing other family members**
In the ideal, family members apply the generic nurturance strategy in their interactions with each other. By the second year of life, the child expands his primitive ODND to include sharing need-satisfying things with siblings, and to respond sympathetically to another family member’s hurt. It is also an understanding in most families that older siblings act to protect younger ones and help them meet their basic needs. Principles of conduct will expand to “being fair” in the use of family resources, other family members are sought out as valued objects and the family as a collective may become the dominant self-transcending connection in the child’s life.

**Forming extra-familial nurturant friendships**
The transition here is a voluntary application of the elements of ODND developed and reinforced in a family situation to someone
to whom one is not obligated to nurture, further expanding the set of beings whose company is sought out. True friends share their most treasured possessions, including special knowledge or skills that might benefit the other, so co-experiencing and co-learning become valued nurturance activities. Loyalty is likely to become a principle in a relationship that has a kind of self-transcendent mystique.

**Forming potential mating pairs**
The initiation of strong sexual drives in pubescence requires a further enlargement of the ODND that is to be brought to bear in relations with a sexual partner. In this transition, the strong valuation of (love for) a sex partner and acceptance of co-responsibility for any outcomes of the sexual union become critical elements of a maturing personal ethical system. Individual egos are surrendered to a self-transcending “we”. Demonstrations that these transitions have occurred, or reliably will occur, should be part of courtship ritual and premarital counselling and such discussions will be greatly advanced and facilitated by the use of explicit values and principles language.

**Egalitarian spousal nurturance**
When potential mating pairs start to live together, the operant ODND should include equal opportunities for personal development as human beings. Despite impressive strides toward gender equality in recent decades, it is still rare for the spouse who stays home to act as primary child nurturer until the child goes to school to have equal opportunity to make her way in a professional or artistic life. In this phase the valued associates should start to include friends of each spouse, a dominant but hard to realize principle will be equitable use of collective personal development resources and the “we” will now exist more extensively over the lived day.
Third party co-nurturance
The advent of children decreases the time and energy available for reciprocal spousal nurturance, and thus leads to some curtailment of the positive regions of the ODND engaged in spousal interaction. In effect, a quality spousal relationship has to be maintained, yet transcended in the larger, self-transcendent system called “family”. This proves to be a very difficult or impossible transition for many adults, especially those who are temperamentally unequipped to deal with the characteristics of the very young, some opting for a “child-free life”. Both the strong valuation of children and the principle of forward obligation (putting the advancement of the next generation over one’s own advancement) seem a critical growth step here.

Self-depleting nurturance of future generations
People who are no longer able to provide minimal self-nurturance, let alone nurturance of others, are becoming a major financial and emotional burden for the young—even to the point of impeding the latter’s own continuing development. In some cultures the very elderly deal with this burden themselves by bringing their own lives to a quiet conclusion. This requires an intense valuation of the human species and principled, self-sacrificing commitment to its continuing development. This perspective will not find favour in a society whose religions prohibit acts of self-termination. But the elderly can at least voluntarily redirect to the nurturance of the generations following themselves the material resources they have accumulated that are in excess of what they need to live as fully functioning human beings.

The foregoing are but a small sample of plausible growth transitions in the use of the ODND. Each could be subdivided, and completely new levels identified. But the set of seven distinctive levels in the ODND does serve to sketch a regular development in human values, principles and self-transcendent connections
that could become formal developmental expectations for the behaviour of community members.

We conclude this section by returning to the two-part strategy for reducing the number of children who become at risk through parental immaturity. Progress through the first six levels described in the above path could drastically reduce the number of adults who have children but are too immature to adequately nurture young human beings. Adolescents would come into sexual relationships with a much more fully developed and practiced ODND, and thus be able to make the major nurturance transitions required at that stage. Those who reveal in the courtship phase that they can't make this transition will be judged poor candidates for a culminating sexual relationship by potential partners. Later on, those spouses who are temperamentally unable to engage in third party co-nurturance or to tolerate young children’s behaviour will be judged, similarly, to be poor prospects for parenting by their partners, who may well look elsewhere for a partner better suited to family life.

In effect, a fully conceptualized ODND can act to screen out immaturity at different points along the path to parenthood. Some individuals will get through these screens, and still prove to be hurtful parents, in which case the whole reactive process of child protection and care will still have to be invoked on behalf of their children.

It is appropriate to ask how far we can realistically expect typical human beings to progress through this sequence of nurturance levels. Plausibly there are innate differences in the capacity to nurture that will limit progress for many, as we suggested in our mention of a preference for a “child-free life”. Yet a detailed analysis of the requirements for carrying out the range of developmental supports identified in the ODND indicates that limited intelligence may be as big a handicap as unsuitable temperament, but that both can be substantially
compensated for by the right kind of training. In other words, whatever our limitations of intelligence and temperament, we can all become much more skillful and effective nurturers.

If we took growth scheming to the limit of complexity we would ask whether we could construct one for the total process of living. Although such an effort may sound pretentious or even silly, the fact is that we make global statements about a life just lived in obituaries and biographies. To say of someone that he “lived life to the full” apparently conveys some kind of meaning to most adults.

We could make that meaning more precise and potentially useful by invoking the CSHDE model for a complete person. From the perspective of this model we would say that a life is fully lived to the extent that (i) all levels of being are brought to their highest level of functioning allowed by natural endowment and personal circumstance and (ii) the human attributes are employed in the widest possible engagements of life contexts and focuses. And if we wanted in addition to invoke the CSHDE idea of a “soul function”, an added layer of fullness of living would be defined by how effectively the engagements of the various life focuses are integrated.

Although a bit “far out”, a growth scheme for fullness of living could actually serve a very practical purpose. If we honestly plotted our own lives on it from time to time, we would quickly determine that we have used but a small part of the vast potential of our species. Hopefully, this would stimulate us to move as far upward and outward in the ODNDs of ourselves and others as our remaining time in this life allows.
Growth Schemes As The Culmination Of A Sequence Of Ways Of Setting Expectations For And Monitoring Development

Over time human societies have developed a succession of ways of setting expectations for, and tracking the growth of, individuals. It is useful to review these briefly because each can still be observed in debates about stimulating human development. As a basis for comparison we will consider how each would address the matter of inculcating decision-making skills.

The Ages (“Passages”) Of Life

This is a very old view that envisages human beings progressively moving through infancy, childhood, adolescence, adulthood and old age. The general view was that rational decision-making was not something you could expect of infants and children, and didn’t start to mature until mid-adolescence or young adulthood. Children’s immaturity and dependence was something for adults to be amused at, to relish, and in some cases even encourage. The phrase “let children be children” is still a motto of those who see no point in stimulating development through teaching before children enter school.

Developmental Benchmarks

In Chapter 1 we explained that promoting healthy development is one of the dominant expressions of society’s goals for interventions with young people, and that this concept is invariably linked to so-called “developmental benchmarks” (also called “developmental milestones” by some). Because of the predominance of the developmental benchmarks concept in current discussions of development expectations, we need
to put that idea in historical perspective. The most thorough application of the developmental benchmarks philosophy was undertaken by Arnold Gesell and his associates in the 1920s. The dominant theory of the period held that human development was determined by an internal “biological clock” set by the child’s genetic endowment. The Gesell team studied thousands of children and young people to determine when important physical, intellectual and social characteristics appeared in their lives. The modal age of appearance then became the benchmark, the basis of many published and widely cited development scales that describe “the one-year-old child”, “the two-year-old child”, and so on.³

One of the most influential Gesell benchmarks had to do with when children could begin to master the task of reading to a sufficient degree to make this a pleasurable activity in school classroom settings. This was observed to occur at a mental age of six and a half—which then became the age at which formal reading instruction began in schools. Parents and kindergarten teachers were strongly cautioned against attempting to teach children to read earlier, and a “hot-house” analogy was invoked to suggest the negative consequences of doing so. Parents and kindergarten teachers were to confine themselves to such “reading readiness” activities as reading stories to children, and having them draw lines between matching pictures in workbook exercises. We have not be able to find any direct reference to decision-making skills in the benchmark scales in use in this region, presumably because it was thought beyond the capacities of young children.

**Stage-Development Theories**

The idea that the age at which children are able to perform certain tasks was determined primarily by an internal time clock was given a boost in the mid-'50s by a new kind of theory
and research. Named “stage-development theory”, it probed the child’s psyche more deeply to find what mechanisms determined the child’s visible behaviour and how these mechanisms grew over time.

The most famous of these, Piaget’s theory of intellectual development, was widely disseminated in North America beginning in the mid-’50s and continued for about a quarter of a century thereafter. Descriptions of the so-called stages of intellectual development—pre-operational, concrete operational, and formal operational—were included in every teacher training program and even made their way into parenting magazines.

One of the best-known attributes of the “concrete operational” stage was the child’s ability to “conserve” quantities, i.e., to understand that an amount of a ball of material remains constant even though its shape has been changed. The common demonstration that a pre-operational child had not reached this stage involved (i) having the child roll two balls of plasticine for which he declares “they’re the same” when asked, “Which has more?” (ii) rolling one ball into a long cylindrical shape and (iii) asking, “Which has more now?” and receiving the answer “the long one.” One “mental operations” explanation for this immaturity was that the child could not imagine the reverse operation (rolling the cylinder back into a ball). Another was that the pre-operational child focused on a single dimension, usually the length, and could not therefore see that the increase in length was exactly compensated for by the decrease in width.

Piaget assigned specific ages to the appearance of the stages, based on the responses of the European children he worked with. In the Piaget system, good points/bad points decision-making was associated with the concrete operations stage, while alternatives by criteria decision-making required the stage of formal reasoning, when the learner was able to consider simultaneously all combinations of alternatives and criteria.
This was thought to happen between ages twelve and sixteen. So as with developmental benchmarks, the theory was interpreted to show what children cannot do mentally before a given mental age, and hence should not be expected or attempted.

The Rise Of Support For Earlier Learning

Both developmental benchmarks and stage-development theories acted as brakes and cautions on the human impulse to promote earlier development. The idea of accelerating development, or even of serious learning before school age, was construed as an ill advised and probably hurtful initiative. This seemed a serious obstacle to the optimal development philosophy.

But the tide began to reverse in the late ’50s. It began with the observation that particular benchmarks or developmental stages did not occur at the same ages in all cultures—in other words, that the general impact of a community through its customs, religion, language and number usages in everyday interactions influenced the rate of almost all facets of human development. We may take this as the first acknowledgement that genetic endowment is but one determinant of the rate of human development, along with the general cultural press just described, positive and negative influences in the physical environment, the impact of focused development efforts and the strivings of the individual himself.

The next assault on the fixed age idea came from exploring the potential of the factor we have called “focused development through teaching efforts”. At first these efforts were directed to proving that the Piaget conservations could be achieved at significantly lower ages. In the ’60s and ’70s, thousands of doctoral studies were directed toward this proof. For example, it was shown that the child would maintain the notion that the two lumps of plasticine were “the same” if two conditions were met.
First, the elongation of one ball proceeded by small steps rather than by one sudden change. Second, the child was asked if the ball had the same amount at each small step, and if he didn’t think it did, the rolled ball was returned to its original shape and the question repeated. Dozens of variations of this strategy were found effective in lowering the age at which conservation occurred by as much as a year or two.

Such successes were reported across the whole spectrum of thinking. Indeed, an Ontario-based group of researchers, on the basis of their own studies, claimed that the mental age presently required to perform intellectual tasks at school could be halved—which meant that typical children could profit from reading instruction soon after their third birthday, and that many could be largely independent readers of children’s books by age four. Similar demonstrations for rate and ratio thinking and the ability to control variables in causal thinking were so spectacular as to regularly elicit comments of: “I didn’t know children of that age could think at that level” from seasoned teachers.

Despite this evidence, the prevailing attitude continued to be, “What’s the hurry? Why not just let children be children? It will be time enough to read when they go school.” This argument unravelled when research began to determine the facts about school reading achievement: that an alarming percentage of children pass though school without becoming sufficiently literate to manage the language demands of everyday life. Estimates vary, but anyone who thinks this is not a major problem ought to reflect on the fact that only about 50 percent of the children in the region in which this book was written were in 2006 able to pass what the Ontario government believes to be reasonable literacy and numeracy standards for grade three and grade six students.

The most recent development, commonly associated with the reports of Drs. Mustard and McCain, is that research has
determined that the period of most rapid brain development occurs even before entry into Junior Kindergarten, and that optimal development is highly dependent on rich stimulation. A corollary was that all children—irrespective of family social class—need higher quality brain stimulation than they presently receive. The double-barrelled attack on the biological clock theory, coupled with an apparently intractable problem of getting a large proportion of children to meet reasonable literacy and numeracy standards, has virtually ended resistance to early (i.e., preschool) learning among knowledgeable parents and caregivers. Indeed the dominant description of the primary caregivers of preschool children has changed over the past two decades from “babysitting” to “day care” to “early learning within care” to “early learning”.

With this background, we can say that, despite their continuing widespread dissemination developmental benchmarks and stage development theories have limited practical use in promoting optimal development. This is partly because they seriously underestimate the pace at which children can develop in the most important dimensions when genetic endowment is augmented by potent, focused external stimulation. The risk of making these measures available is that parents may conclude that their children’s meeting or exceeding benchmarks or attaining a particular stage by the designated age, is evidence that they are on schedule for optimal development, so that no further focused effort is required—a foolish abandonment of the vast potential of children.

However, benchmarks do have a useful role in identifying children at extreme risk of failing to achieve acceptable standards of development in their later years. For example, if a child is not walking by 18 months, or articulating recognizable words by two years, then inquiries should be made about causes and possible remedies. Consequently, checking off the child’s position in a
developmental benchmarks scheme may be a useful step at the end of the period designated infant, toddler, and so on.

As for stage development theories, parents have found it difficult to apply them to the everyday child rearing tasks (such as feeding, dressing and toileting) to which the bulk of their time and energy is directed. For example, it was difficult to imagine what practical purpose a child would have for creating two balls with equal masses, rolling one into a cylinder, then speculating on their relative masses. Moreover, the parent’s real interest was that the child learned to do such tasks as dress himself, whatever development stage he had reached in performing the seemingly artificial tasks employed in developmental research.

However, stage development theories have made important contributions to thinking about human development. As we have already indicated, American researchers in particular were highly motivated to show that, with the right stimulation, the development of the young could appreciably exceed benchmark expectations. The stage development theory also suggested that human beings would advance to the next highest (proximal) level of development if immersed in a group performing at that level, and this was demonstrated with particular clarity in respect to moral reasoning.

**The Impact Of Growth Scheme-Based Instruction And Monitoring**

Earlier we reported that fairly commonsense interventions focused on the important growth transition called “conservation of substance” accelerated its appearance by a year or two, which is hardly insignificant when children are aged five to seven. Many growth-scheme-oriented parents have been able to get comparable results by developing the reading and number skills of their four-year-olds to a level comparable to what six-
year-olds have traditionally achieved. In light of our widespread illiteracy problem, this is a very important achievement indeed.

Even more dramatic results occurred when a new branch of psychology, called applied cognitive science, began to take shape in the 1980s. Greatly influenced by computer analogies, this science demonstrated that the human mind has a working memory (computing space) whose capacity is calculated by the bits of information that can be held in memory at the same time. Thinking, according to this model, takes place as this information is acted on by mental operations (such as comparing, putting in order, and classifying), which can also be called from memory into the working space.

A further observation was that these primitive operations can be brought into play by more abstract mental structures, such as the schema for decision-making. When these mental structures were applicable across many life situations, they were “instantiated” (used in conjunction with current data about such situations to determine the best course of action to pursue at that point). As is the case with the power of a computer, the power of the mind (the complexity of the thinking it is able to do) depends not only on the brain’s computing capacity (the amount of information it can store and the speed at which it can process information) but as well on the potency (scope of application) of the schemas (generic programs) it can call up.

Instruction that focuses on making specific schema transitions (enlargements) has proven to be very effective in accelerating development. For example, some inventive primary grade teachers in our region long ago demonstrated that a transition-focused strategy could cut at least three years off the time it takes for learners to make the transition from a good points/bad points to an alternatives-by-criteria schema, and hence display much earlier the superior decision-making logic associated with that transition in a wide variety of decision-making situations.
Such results cause us to ask what acceleration of human development could we expect to occur if the most potent teaching methods were applied at the most important transitions? In this regard, we are especially fond of citing the work of the late Dr. Robbie Case. A 1999 research article describes his intervention program that concentrated on initiating and combining the flexible schema that underlies children's number sense.\textsuperscript{9} When the bottom quarter of a kindergarten population, whose growth in number sense had up to that point been half that of the highest group, received his program, they then advanced at double the rate of their allegedly more capable classmates. In so doing, they apparently quadrupled the rate at which this fundamental understanding of numbers was previously developing. This was undoubtedly a best result, but it even exceeds by a wide margin the “attainment by half the mental age” claim made some quarter of a century earlier.

Because most dramatic demonstrations of acceleration have been made with cognitive tasks, we are left wondering what might be achieved in other dimensions of human development. We believe that a detailed examination of precocious performance in many physical and aesthetic tasks would reveal the deliberate inculcation of progressively more mature schemas from the earliest possible age.

But what about stimulating development in the higher levels of being? As our analysis of growth schemes for values, principle use, and self-transcendent connections suggests, the two major required schema transitions are to the right and upward in the ODND and outward from oneself. It seems evident from autobiographies and case studies that the chance of these critical transitions occurring will be enhanced if they are stimulated, modelled and rewarded by parents from the child’s early years.
IDEAS TO REMEMBER FROM THIS CHAPTER

1. Growth-focused teaching is most effective when it engages an individual at his present level of development in a particular attribute and helps him make the transition to a higher level. To systematically promote growth in a particular attribute over the long run, then, we need a description of the set of possible growth advances or transitions that cover the time period during which we will be making this attempt. For more than four decades the authors have employed a conceptual device called the growth scheme to construct this description of growth.

2. Growth schemes are constructed by dividing the process to be mastered into its component tasks and identifying levels of performance on each task, thus constructing a two-dimensional chart. Parents already construct and use these intuitively when helping children assume responsibility for common physical tasks. In such situations, parents observe the child’s present position in the growth scheme and assist him to make the transition to a higher level on a component of the process or take on a new component. For more complex processes, such as decision-making, parents will need to learn how to retrieve and/or upgrade the processes they use themselves if they are to construct growth schemes for their children.

3. Most of the growth schemes developed so far by the authors have been for the intellectual level of being. However, it seems that values, principle use and self-transcendent behaviour can be described as processes with identifiable components, so that constructing growth schemes for these valued attributes should also be feasible with sustained effort.
4. Though more speculative, analysis suggests that useful growth schemes can also be constructed for ODND-linked schemas (e.g., risk management), the engagement of life focuses (e.g., building nurturant relationships), and even for very complex behaviours that involve employing levels of being to enrich ODND schemas as life focuses are being engaged (e.g., the use of ODND in its entirety).

5. When intensive stimulation is focused on important transitions in growth schemes, development has been dramatically accelerated—in the most spectacular cases by a factor of four. Although these results have been demonstrated primarily with cognitive tasks, it is reasonable to believe that comparable results could be attained with any schema-influenced kind of development.

6. Growth schemes are important for promoting the development of all support agents in the social-ecological system. We argue in Chapter 6 that enhancing the presently low level of teaching skill among the general public would be an important example where existing levels of skill need to be located within a map of possible levels and then substantially upgraded.

7. Those working to promote the development of children and youth will find that many social agencies with whom they might productively collaborate still use methods for planning and monitoring growth that were developed before the growth scheme strategy was introduced.
   i. Developmental benchmarks reflect the levels of performance children have reached without focused stimulation. They are useful in identifying children at risk of not making adequate progress on the most common human dimensions, but generally underestimate
what typical children are capable of achieving with appropriate stimulation. They are not useful, therefore, for planning systematic development interventions.

ii. “Stage-development theories” have contributed to our understanding of the inner working of the human mind, but have proven difficult for primary caregivers to apply to the child-rearing tasks that absorb the bulk of the time in the caregiver’s and child’s lived days.
CHAPTER 6

ENHANCING THE IMPACT OF TEACHING ON HUMAN ADVANCEMENT

IN PREVIOUS CHAPTERS, we have incorporated five main dimensions of human development into A Model For A Complete Person. We have identified the set of nurturant actions, including teaching, required for optimal growth in these dimensions. And we have demonstrated a method for determining growth in the processes activated when these dimensions are engaged. The next step is to determine how a learner’s movement along such a continuum of growth can be most usefully stimulated.

This chapter, then, describes how we can substantially increase the contribution of teaching to human development and advancement. It begins by locating the coupled processes of teaching and learning within the sequence of ODND actions, and giving uncomplicated definitions to these key terms. The major section of the chapter explores how CSHDE concepts can dramatically deepen our understanding and effective use of the teaching/learning process. Finally, we discuss a strategy for
enhancing teaching skill in all facets of everyday life and the role authentic faculties of education would play in it.

**Teaching As A Nurturing Process**

The ODND describes a sequence of actions human beings take in support of the fullest possible development of members of our species. For example, to foster the development of a child’s psychomotor skill—such as moving the body over the ground—the parent: (i) heads off injury to the legs; (ii) assures that the muscles get sufficient nutrients, exercise and rest, and (iii) tends immediately to any injury that the muscles might suffer. These three maintenance inputs will allow internal developmental forces to enable the child in time to walk, jog, and run. This spontaneously occurring process of development, given only maintenance inputs, is called “maturation”.

Although maturation occurs at all levels of being, its pace and resulting level of development decline rapidly with the complexity of the behaviour in question and the level of being to which it belongs. As an example of the complexity factor, most human beings will steadily increase their vocabulary simply by being within earshot of talking adults, but over the same period may increase the level of their decision-making very little despite having been involved in making countless decisions. And as for how the pace of maturation is related to level of being, while physical maturation is a spontaneous feature of every person’s life, most of us appear to grow spiritually very little in our allotted time.

As human civilizations advance, their members, to thrive, must acquire knowledge, skills and attitudes that maturation will not deliver quickly enough, or to a sufficient level. Just two centuries ago only a tiny percent of the adult population, mainly the professional classes, could read. Consequently
the participation of most citizens in the political process, for example by reading political party documents and government reports, was severely hobbled. So democratic governments set up schools whose job was to inculcate the 3Rs to a level required to be functionally independent in a growing literacy-based society.

The adults who inculcated the 3Rs were called teachers, borrowing a term rooted in our earliest civilizations. From this historical background we can construct the definition employed in this book that teaching is a set of actions undertaken by one person to promote the development of others beyond what would occur by maturation alone. Learning is the reciprocal process of developing beyond what would occur by maturation alone. In classrooms, teaching and learning are inextricably linked, so it is natural and common to speak of the teaching/learning process.

We could construct a whole net of terms around the teaching/learning process. On the teaching side we have people who teach, instruct, model, profess, coach, counsel, advise and preach. On the learning side there are learners, students, apprentices, acolytes and others. We will not pause here to tease out subtle differences—most of which can be attributed to the context in which the terms are used. For example, the person trying to convey the concepts of geography to learners is called a teacher in secondary school, and an instructor, lecturer or professor in university.

As discussed in Chapter 2, teaching takes place in three distinctly different contexts, although in two of them it is not recognized as such. In the first, when a learner comes to a designated teacher, as in a school, there is no uncertainty or equivocation about the process that is to be initiated on the learner’s behalf. It is teaching, pure and simple.

However, it is a different matter when, in a situation outside school, a more mature person encounters a less mature
person for whom he/she is responsible. If this less mature one is performing a life task at a level below his capability and best interests, the more mature person is likely to try to raise that level. We might think of a mother who encounters the child struggling to dress himself. Despite her intent to raise his level of dressing performance, the mother is typically reluctant to say she is teaching him. We believe this results from the almost universal belief that teaching can only take place in a school under the direction of a licensed professional. Thus results the belief that what is done at home can’t possibly be considered teaching and to claim it is leaves one open to the accusation that he/she is pretending to do the professional’s work. On this account the mother may want to limit herself to saying that she “shows” the child how to get dressed. But if this showing is to be effective it must be understood as teaching and must engage all the components of that process.

In the third nurturing situation two long-term partners may hope and believe that, in the words of the Bishop of London, they will help each other become “their deepest and their truest selves.”1 The great part of their interaction is around the usual focuses of everyday life: home, children, work, recreation—and much learning will occur on both sides, even when there is no intention to teach. But if the partners bring the ODND to their relationship it can sometimes reach the development-through-teaching column, and thus present a “golden opportunity” to foster an advance in some valued attribute of one partner, who is less developed than the other in that attribute.

But the suggestion by one partner that she is ”teaching you” or even “showing you how to...” could be resented—probably because these terms can be interpreted to imply some kind of immaturity on the “learner’s” part. Great subtlety and strategy may be required here, but the fact remains that the teaching process is often being brought into play and that effective teaching goes far beyond telling.
What prompts this intuition to teach? Internal drives push us toward forming positive relationships with other living things—by bringing the operation of the systems that comprise our/their respective levels of being into synergistic interaction. For example, when we try dialogue with someone there is a beneficial interaction between our respective knowledge and information processing skills. The possibility and scope of synergy increase as the less mature person grows in the attribute drawn into their interaction, reaching its maximum when the participants are equal in sophistication in that attribute—at which point they can truly co-teach/co-learn through dialogic exchange. A thoughtful workman will often think it wise to spend time building up the relevant knowledge or skill of his assigned helper prior to trying to work as a team with that person. Some parents stimulate the language and logical development of their young offspring far beyond conventional norms, sensing perhaps that this somehow transforms them into “delightful children”. From this perspective, teaching is not a purely altruistic activity, but is a powerful drive that also serves the self and is deeply rooted in the human psyche.

It is important to remember that the greater part of human learning occurs without a professional teacher. Books and, increasingly, computers can provide the necessary input for learning ideas, in which case these technologies may be understood figuratively to be the teacher. And there is a broader cultural understanding that we can “learn from experience”, in which instances we may say that we are “self taught” or that we are our own teacher.

We believe that the foregoing sections have established the critical importance of teaching to human advancement. In a nutshell, as civilizations become more complex, the desired levels of valued attributes in citizens that will not result from maturation must be pursued by thoughtful teaching. Moreover,
the greatest part of the vast amount of teaching needed to reach these levels occurs in life situations outside of schools.

Using CSHDE Concepts To Advance Our Thinking About The Teaching/Learning Process

Our problem is that, despite its critical role in fostering optimal development, teaching remains a minimally conceptualized process in our culture. Widely cited propositions, such as “teaching is an art not a science” and “teachers are born not made” reflect the shallowness of thinking that characterizes public conceptions about teaching. Even more simplistic is the belief that the dissemination of information on such health hazards as smoking, drinking, driving too fast, or failing to exercise should be called “educating the public” and that it is believed to result in desired changes in the way the recipients of this information act and therefore constitutes effective teaching.

The result is that attempts at teaching are seldom more sophisticated than telling. They rarely have the impact they could, and much that passes for teaching probably has no impact at all. Thus, learners are too frequently cheated in the teaching/learning process. It is not surprising then, that by the time they are old enough to figure this out for themselves (early secondary school years), far less than half are still intellectually engaged in their studies.²

In this section we deal with some of the major contributions CSHDE concepts could make to the teaching/learning process, discussing them in the order in which they would be considered by someone responsible for using that process.
Locating Teaching Within The Process Of Nurturing

The potential of CSHDE begins to be evident when we locate teaching within the Stimulate Development Directly column of the ODND. From Chapter 3 we recall the generic nurturance strategy, the tendency to first remove actual or threatened hurt, then meet basic needs and promote recovery from injury—prior to trying to foster development through teaching and learning. This does not mean that there can be no learning before these preconditions are met, but rather, that learning will be impaired to the degree that these conditions distract or consume the learner's attention and energy.

Although these prerequisites to focused learning, hence effective teaching, may seem obvious once they are laid out, it is surprising that teaching in our formal educational system has historically paid little attention to them. The university professor, sometimes engaging several hundred undergraduate students at once, could not possibly have any notion of how these prerequisites stand for any individual student. The secondary school teacher might know that some event or other is playing havoc collectively in the lives of his twenty or more students in a particular class, in which case he would try to deal with it before continuing with his instruction. Even in the primary and junior grades of elementary school, where each class of students may have the same teacher for the entire school day, it is only recently that it has been widely recognized that many students come to school hungry and need to be fed before serious, sustained learning can be expected. And even here, some students continue to suffer from the secretive terrors of bullying which undermines their ability to focus on learning.

Locating teaching within a more comprehensive strategy for nurturing human beings seems an essential mindset if we are to make the best use of the time we have with learners. Yet these examples illustrate how, even when the need for such a
strategy is acknowledged, the circumstances of mass education severely limit the extent to which it could be executed.

**Identifying A Mental Model For Teaching**

It is interesting that until the middle of the 1900s elementary school teachers received their training in what were called “Normal Schools”. “Normal” being a derivative of “norm” or “rule”, the name given to these institutions correctly signified that their dominant activity was to teach prospective teachers the procedures or rules for managing classrooms and giving instruction in the three Rs. These rules or procedures were worked up into “lesson plans” that teachers-in-training developed, then implemented in classrooms under the supervision of seasoned teachers.

As a first step in raising the status of the profession, the Normal Schools were renamed Teachers’ Colleges, a term deliberately chosen to intimate post-secondary level learning. Then in the late ’60s, the Colleges were incorporated into the university structure as Faculties of Education. Being part of a university, as well as providing formal training for an aspiring profession, meant that Faculties of Education had to add a theoretical foundation to teacher training. This consisted primarily of the history and philosophy of education, educational psychology, educational sociology and a smattering of educational law. The teaching of specific subjects, now elevated from “lesson planning” to “methodology”, was intended to draw in relevant concepts from this “theoretical foundation”. The governing paradigm was that “practice is theory (i.e., foundations) applied in specific contexts”.

As recently as the late 1980s the theoretical components of Faculty of Education-based teacher training failed to come into productive relationship with the lesson planning process. This was true as well of the relation between theory and practice in
other professional fields, such as nursing and engineering, to the extent that—in the authors’ experience—the practitioners typically dismissed the theoretical component by saying that it was “a waste of time”.

A possible alternative to the “practice as applied theory” paradigm was put forward in the late 1980s by a group with which the present authors were extensively involved. It was centred on the idea that highly competent teaching and other complex forms of professional performance are not governed as much by procedures or rules as by mental models or schemas. To recall from Chapter 4, schemas are very general mental structures which, together with a “reading” of a given situation, suggest a way of acting that is appropriate for that situation. Moreover, for the kinds of nurturance called for in the ODND as well as other complex life tasks, these schemas are retrieved from an analysis of successful life experience, in the present case of successful teaching encounters. Finally, such schemas can be strengthened by incorporating within them insights from research and currently reputable theory. As an example, the main components of the schema for developing instructional units described later in this chapter were retrieved from analysis of the work of successful book and chapter writers—that is, from research that used competent practice as its primary data. This basic framework was then expanded by applying theoretical concepts, such as the primary kinds of learning outcomes. Thus, the schema-based approach brings theory, research and practice together in a more complex and productive way than does the “practice as applied theory” approach.

A schema retrieved from successful teaching in 1990 was called A Model for Educational Processes (MEP) and is shown in Fig. 6.1. It was intended to be completely general, applicable to all teaching programs, of whatever length—from lesson to complete program—inside and outside school.
Examining Fig. 6.1 more closely, we see that the small ovals represent a teacher and learner interacting (indicated by arrows) around a set of tasks that must be dealt with in the course of a teaching/learning engagement. A successful engagement involves determining: (i) the intended learning (learning objectives) for the engagement; (ii) growth descriptions for the dominant objectives (from which can be determined the
learner’s entry and intended exit levels of performance in regard to these learning objectives); (iii) a sequence of instructional objectives (that identify growth steps or transitions between the entry and exit points); (iv) demonstrably effective teaching/learning strategies for stimulating these growth transitions; (v) the material and human resources required to carry out these strategies; (vi) the teaching/learning space in which it will occur, and (vii) the strategies and associated tools that will be employed to determine how much growth has actually occurred.

In later elaborations of this basic model, the teaching strategies component was expanded into an instructional cycle that mirrored the steps employed in the formal lesson plans teachers were required to devise for individual lessons. In general form, these were: (i) motivating the student to learn; (ii) initiating or planting the new learning in the learner’s mind; (iii) consolidating the new learning, normally by reinforced practice until independent use was attained, and (iv) applying the new learning to content different from what was used in (i) and (ii).

The larger ovals around the outside reflect an attempt to bring each of the theoretical “foundations” of teaching plus the methodology component into a more direct relationship with lesson planning. Thus:

1. In MEP accounts, the intended educational outcomes identified in traditional educational philosophy courses were organized in what was called the “Image of the Educated Person”. This specified the prevailing belief about the qualities (knowledge/attitudes/skills) the graduate of the impending learning experience was to exhibit and the contexts in which they were to be exhibited. The acquisition of the visualized qualities became dominant learning objectives for the teaching episode.
2. The Model of the Learner focused the traditional educational psychology component of the foundations program by dealing with how the dominant types of qualities identified in the image and pursued in methodology could best be stimulated.

3. The Conception of the Discipline spoke to how the “subject” taught by the teacher could be used to achieve the kinds of learning objectives identified in the image of an educated person and the Model of the Learner. It was thus a large contributor to methodology courses. For example, if an intended learning outcome of a science unit on Pond Life was “the ability to think critically”, then the unit designer would have to deliberately determine how science content (in this case about pond life) could be used to develop and consolidate that skill.

4. Finally, the MEP Conception of the Milieu focused on those aspects of the social environment, including the particular circumstances of the learners, that would affect the way the teacher would apply that methodology. Suppose, for example, that the Pond Life unit made reference to plants whose primitive ancestors have been traced back millions of years by biologists. The teacher would have to give serious thought to how she would handle this topic in a community in which “creationist” views pre-dominated.

We might at first think these considerations are rather far-fetched in the case of out-of-school settings—for example, a master plumber teaching the trade to an apprentice. But is that really so? Surely the “teacher” in this case has a mental view of a fully trained plumber—one who goes far beyond possessing the basic mechanical skills involved in plumbing to include such things as the ability to solve problems, valuation
of quality work and the fair and caring treatment of customers. The plumber-teacher’s conception of how novices learn would certainly determine his method of instruction. Does he merely tell, or does he try to draw intuitive ideas from the learner? This plumber-teacher would likely consider that the reliable knowledge basis for his work would be those aspects of physics that deal with water flow and pressure. And among his milieu considerations would be the need to adapt the quality—hence the cost—of suggested fixtures to what he believed the customer could afford. These components of MEP are always brought to mind in any teaching/learning episode, even though they may be only marginally developed or brought to consciousness.

The Model for Educational Processes (MEP) was taught to many hundreds of teachers throughout the 1990s. With very few exceptions, teachers said things like, “it makes sense of what I do as a teacher” and “it gives useful direction to my lesson planning”—indications that MEP was indeed playing its intended role as a generic mental model. In Piagetian terms, it seemed capable of raising teaching from the concrete operational to the formal thinking levels.

A more objective validation of the value of MEP in promoting the acquisition of teaching competence was made in an experimental program for teachers in training that was planned and implemented by the authors of this book. In this study MEP was retrieved from the learners themselves and used as a consistent frame of reference throughout the training program. The Foundations content was directly linked to one or more MEP tasks, which collectively provided the framework for lesson planning. Both the evaluation of the performance of these candidates by seasoned teachers and the ratings of the experience by the candidates themselves appeared to reach the gold standard “two sigma” improvement over corresponding ratings for students in the regular teacher training program.
MEP’s chief shortcoming was that the teacher and learner were represented by empty boxes—with the explanation that this component would be expanded as the model was put to use. A useful first step in this expansion was presented in our conception of the fully functioning human being, the image of which can be mentally super-imposed on the ovals representing teacher and learner, thereby giving a richer sense of the possibilities for their interaction.

**Conceiving Teaching As An Act Of Intelligent Self-Direction**

We have found it beneficial to cast a mental model for any life process into the intelligent self-direction structure. To do this we have to identify its purpose, the plan for achieving that purpose, what will be attended to particularly in implementing the plan, and what will be thought about after the implementation is complete. One such elaboration of the MEP core tasks is shown in Fig. 6.2.

Perhaps the biggest advantage of thinking of the conduct of any process as an act of intelligent self-direction is that it makes us reflect that—in the goal segment—we can have a range of intended outcomes in mind. For example, if the topic of a learning program is “friends”, the learning expectations might range from acquiring straightforward information about how many friends people of different ages claim to have, at the least complex level, to acquisition of skill in regularly strengthening friendships at the most complex level. As the complexity of the goal increases, so also must the engagement of the Plan, Implementation, and Reflection phases.
Sequencing And Cumulating Intended Learning Outcomes

The teaching process, as an act of intelligent self-direction, can be planned and carried out over time periods that vary enormously in time—from a fleeting encounter when a parent teaches an infant the name of an object, to a year-long course in which a university professor teaches the topic of child development. A common learning period in parenting courses is the one-to-two-hour session devoted to a topic such as child safety or nutrition.

Clearly, as the length of the learning program increases, the task of sequencing learning expectations to have maximum impact in the time available becomes ever more difficult. It is compounded when the designer of the learning program has to work within guidelines prepared by the government Ministry that sponsors the program, and so has to at least attain the learning expectations set out in it. Most learning program designers find it much easier to tell their students what the designers know about a subject than to foster skill in using that knowledge. Consequently, most learning programs for individuals of all ages are strongly biased toward knowledge exposition and systematically under-treat the more complex intellectual skills required to use that knowledge in real life tasks. One of the important functions served by effective sequencing is to cumulate the behavioural advances produced by the attainment of individual knowledge and skill objectives.

One promising proposed solution to the sequencing problem was discovered some two decades ago by retrieving the schema employed by textbook writers whose books had served as the basis for effective learning programs. The elements of the schema, named “topic elaboration”, were focused and guided by the series of questions shown in the left-hand column of Fig. 6.3.
<table>
<thead>
<tr>
<th>GOAL</th>
<th>PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>State overall learning goal</td>
<td>Identify and gather resources needed to carry out this strategy</td>
</tr>
<tr>
<td>Identify types of intended learning outcomes</td>
<td>Identify type of learning strategy deemed sufficient to reach this level</td>
</tr>
<tr>
<td>Restate learning goal as intended learning outcomes</td>
<td>Identify student activities that are to be included in this strategy</td>
</tr>
<tr>
<td>GOAL</td>
<td>PLAN</td>
</tr>
<tr>
<td>Identify potential growth paths for highest priority intended learning outcome</td>
<td>Identify level in growth scheme to be attained</td>
</tr>
<tr>
<td>GOAL</td>
<td>PLAN</td>
</tr>
<tr>
<td>Identify potential growth paths for highest priority intended learning outcome</td>
<td>Identify level in growth scheme to be attained</td>
</tr>
<tr>
<td>Identify type of learning strategy deemed sufficient to reach this level</td>
<td>Identify student activities that are to be included in this strategy</td>
</tr>
</tbody>
</table>

**FIGURE 6.2** A mental model for the teaching/learning process.
<table>
<thead>
<tr>
<th>IMPLEMENTATION</th>
<th>REFLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read situation in teaching space</td>
<td>Adjust plan to fit existing situation</td>
</tr>
<tr>
<td>Motivate the learner</td>
<td>Initiate the new learning</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>TOPIC ELABORATION QUESTIONS</td>
<td>KNOWLEDGE</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>1. What is the best name for this unit?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2. What meaning will we attach to the central concept in its name?</td>
<td></td>
</tr>
<tr>
<td>3. How does the process inherent in this concept work?</td>
<td></td>
</tr>
<tr>
<td>4. What aspects of (variables in) this process do I want to influence?</td>
<td></td>
</tr>
<tr>
<td>5. How are these variables related to other variables that I can change?</td>
<td></td>
</tr>
<tr>
<td>6. Given costs and benefits involved, would any of these changes constitute a wise decision?</td>
<td></td>
</tr>
</tbody>
</table>

**FIGURE 6.3** *Unit design schema.*
## Unit Outline

<table>
<thead>
<tr>
<th>UNIT OUTLINE</th>
<th>TEACHING STRATEGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTIVATE</td>
<td>INTRODUCE NEW LEARNING</td>
</tr>
</tbody>
</table>

1. What is the best name for this unit?
2. What meaning will we attach to the central concept in its name?
3. How does the process inherent in this concept work?
4. What aspects of (variables in) this process do I want to influence?
5. How are these variables related to other variables that I can change?
6. Given costs and benefits involved, would any of these changes constitute a wise decision?
This larger diagram, called the Unit Design Schema, is intended to work as follows:

1. The unit designer focuses on each topic elaboration question in turn.
2. The designer thinks of potential knowledge, skill and attitude learning expectations (instructional objectives), sensibly related to that guiding question, that would flow from the unit goal(s).
3. These potential instructional objectives are written in the appropriate knowledge, skill and attitude columns in the left half of Fig. 6.3.
4. The designer moves on to the next question, and repeats steps (2) and (3), keeping in mind and building upon instructional objectives already recorded in the chart.
5. When all questions have been dealt with, the designer works his way through the list of potential instructional objectives, numbering those that he intends to include in the unit, basing his choice on the instructional time available and his understanding of their relative importance.
6. This, now sequenced, set of instructional objectives is transferred to the instructional objectives column on the right-hand portion of Fig. 6.3, where each is processed through the instructional cycle, yielding the unit plan.

Although a detailed enactment of this strategy is beyond the scope of this book, a rapid passage through the questions will give some sense of what can happen at each stage. We will imagine that the topic “friends” has been chosen for treatment as a learning unit by a classroom teacher or a parent who understands the importance of such a learning experience to their son or daughter.
What is the best name for this unit? The term “friends” first occurred as the topic name to our learning unit developers. However, experience has taught us that it is better to press on for a process definition, which would suggest “being a friend of” and “being a friend to” for the topic “friends”. Then, from the perspective of making a contribution to positive outflow, the potential names “making friends” and “improving the quality of friendships” seem most useful. In advanced treatments of program design, the term “concept net” is used to describe the nest of related concepts that inevitably form around our first thought about a topic name. A fully developed concept net would also distinguish “friend” from “colleague” or “acquaintance”.

The derivative learning objectives could vary enormously. A simple one might be, “know the names of common terms associated with friends”. A more complex objective might be, “acquire a well defined concept net that relates and distinguishes human relations terms”. The teacher might even see this as the occasion to make a start toward an even more complex (though unit transcending) objective, “can construct a concept net for important life focuses”.

What meaning will we attach to the central concept? Again, a wide variety of potential learning objectives could be generated. Most commonly in schools, students would learn a definition provided by a teacher, dictionary or reference book. But we might again think more broadly of generating positive outflow. Here, by being led to discover the meaning they will attach to the unit name, then reflecting on the path they pursued to do this, students will, “understand a strategy for defining concepts for themselves”. A useful strategy for doing this is described in a later section on introducing new learning.

How does the process inherent in this concept work? This question calls for the construction of a mental model, and would only
arise when a process-linked name for the unit was chosen. Even then, the potential learning outcomes range enormously from “knows a model for improving friendships” to a more long range “knows how to construct a model for important life processes”.

What aspects of (variables in) this process do or might I want to influence? This is a matter of personal value and principle, so does not in itself generate learning objectives. Learners might value pre-eminently a certain aspect of friendship, such as the satisfaction and personal growth it brings. This valuation defines the variable they want to influence—the pleasure they get from their friendships.

How are these variables related to other variables that I can change? At the least complex level, the learning objectives could be “knows factors that relate to the affect level in friendships”. We might possibly find this kind of information in a social psychology text or research journal—but it is far from likely. So in the broad sweep of life activities we have to determine for ourselves whether these relationships exist. The strategy proposed in the topic elaboration process involves: (i) calling up our mental model (from the “how does this process work” phase); (ii) comparing what we do at each phase with what is done by someone who seems to be getting better results, and (iii) testing by “experiment” whether changes suggested as potentially causal in the better result actually produce better results when other factors are held constant. So, at a much more complex level, our intended learning outcome could be to learn how to do the inquiries called for in (ii) and (iii).

Given costs and benefits involved, would this be a wise decision? Suppose that our inquiries determined that satisfaction in friendships can be enhanced by increasing the depth of the relationship, but that this requires a considerable increase in
the time given to the relationship. A costs/benefits decision is now called for. A high-level learning objective could be that participants will “learn (acquire knowledge of) a process for making cost benefit decisions” which could be a first step toward the even more ambitious objective of “acquiring skill in making cost/benefit decisions”.

This brief account suggests how topic elaboration can generate a cumulative sequence of learning outcomes for a unit, whatever level of aspiration might be reflected in the unit goal. When the most comprehensive learning outcomes are pursued at each stage, the culminating outcome would be the ability to clarify, make a model for, and continuously improve the desired outcomes of, important life processes. For us, this constitutes the basis of empowerment—a process we discuss more fully in Chapter 7.

**Unraveling The Art Of Introducing New Learning**

The somewhat bland expression “initiating new learning” masks the fact that we have come to the heart of whatever constitutes the art of teaching.

Teaching strategies vary in the intensity of their engagement with, and impact on, the component actions of the Pattern of Ideal Development in Advancing Systems (PIDAS). As we recall from earlier chapters, this principle says that living systems grow by enlarging their parts, or adding new parts, as they integrate the action of these parts into more effective processes. We could identify a scale of increasing intensity of the teacher’s engagement of the learner’s mind with any of the complex learning objectives generated for the Making Friends unit, but will use the ability to make decisions as our illustrative example.
We name the strategies associated with successive points on the scale: providing opportunities; reinforcing more mature behaviour; modelling the use of a more mature process/system, and stimulating the internal enlargement and restructuring of the learner’s existing mental model.

**Providing opportunities**

This means, minimally, providing the nutrients and exercise required for PIDAS to operate. Allowing people to participate in family, workplace or community decision-making would be common instances of providing opportunities for growth to occur in decision-making skills. Requiring only ongoing attention to safety and basic needs, this level of teaching can be done in groups of learners of any size that can be supervised by the personnel on hand.

From the perspective of PIDAS, providing opportunities would seem to engage existing system elements and activate whatever process connects them. This could have a practice effect, leading to the more efficient execution of a skill at its present level of sophistication, but there is little reason to believe that it would advance that level (i.e., result in new learning). This is borne out by our life experience in which countless opportunities for us to make decisions led to very minimal growth in decision-making skill over a time period of many decades.

Growing awareness of the limitations of providing opportunities may be starting to take root among those promoting early learning. Until recently, free (un-intervened) play has been the most widely advocated vehicle for providing opportunities for young children’s intellectual, psychomotor and social development. However, the uncritical acceptance of the notion that play equals learning—so prevalent 30 years ago—has now been replaced by the assertion from prestigious researchers and theorists that growth requires “play-based problem solving learning”, preferably with adult intervention.⁴
**Reinforcing more mature behaviour**

A growth-minded person will spontaneously praise children’s behaviour that seems beyond their years, i.e., more mature than one would expect. A decision-making example of such behaviour would be a four year-old child acknowledging some negative point about his preferred alternative. This kind of teaching is possible to some degree in typical classroom-sized groups of learners, where the teacher might—realistically—have the time to make one such positive appraisal for each student per lesson, should such advancements actually occur during that time.

In a PIDAS analysis, praising the child’s inclusion of a new element, or a better way of connecting elements, will increase the probability that these advances will appear in subsequent performances. For example, if a learner who as decision-maker normally thinks only of “good points” for his preferred action (alternative) on some occasion thinks of some “bad points” as well, and this is praised by his teacher, in subsequent decisions he seems more likely to use this now-expanded schema. The obvious limitation of this approach is that critical advancements may appear spontaneously over very long periods of time. In the interim, the teacher can weaken the effect of reinforcement by declaring everything the child does to be “wonderful”—a misguided application of the notion of unconditional positive regard.

**Modelling the use of a more mature system/process**

This has come to mean the teacher talking aloud about (explaining) what she is doing as she is doing it. Modelling has become the most widely mentioned and applauded direct teaching method. But its effectiveness varies enormously depending upon how it is done.

At the ineffective end of the continuum, the teacher has a schema for the more mature behaviour she is intending to inculcate, and uses this to perform the mature behaviour herself,
talking out loud essentially in her personal adult language, about what she is doing. From a PIDAS perspective, the teacher’s modelling can exhibit more mature elements than those that presently exist in the student’s enactment of a process, or suggest new elements, or demonstrate a better way of organizing them. For example, the teacher might demonstrate how, when making a decision, she systematically thinks of alternatives, criteria and the evidence that connects them. But unless the student understands the words used, and how they link to the actions taking place, he has no way of retaining and reconstructing these elements in his mind when making his own decisions, so little (if anything) is learned. Thus it is important that the use of age-appropriate process language is an integral part of the teacher’s demonstration, especially at the stage of introducing new learning.

In a more effective approach, the teacher who is better attuned to the learner’s language and existing schema, ensures that the “jumps” involved in language and action are small enough that they can be managed by the learner, in which case they are said to be “within his zone of proximal development”. But the motivation to incorporate these upgraded actions and associated language must be present as well. Both life experience and our Model For A Complete Person tell us that we will cling to old ways of doing things, even when competent models are available, unless we see enough resulting positive affect for ourselves to offset the anxiety (pain) of change and the good feeling we get from the way we presently do things. It is puzzling to us that, no matter how often adults have seen the alternatives-by-criteria level decision-making used in public decision-making, most fall back on the less sophisticated “good points/bad points” logic in their own decision-making. Apparently they are sufficiently satisfied with the results they get from using this “immature” decision-making schema that they see no reason to submit to the effort of upgrading it.
Both methods of “modelling” put the teacher in the role of “doing for” the learner. In time, competent performers of the teaching function will start to “do with” the learner, in this case letting the latter perform those steps he has already mastered, while still performing herself (modelling) the steps he hasn’t.

**Stimulating the learner’s own internal enlargement and restructuring of his existing mental model for the process in question**

This is the very pinnacle of the teaching art, achievable primarily in one-to-one encounters in which the teacher can continuously monitor and intervene in the learner’s thought processes. It has acquired an elegant new name in recent years—constructivism—but it is really of ancient vintage, being essentially an elaboration of the method used by Socrates.

As a brief sketch of the method, we will return to how a teacher would stimulate the decision-making transition from a good points/bad points logic to one where all alternatives are judged by the same criteria. This has been done by successfully applying constructivist teaching methods with the student whose decision schema took the form shown previously in Fig. 5.4 (top). Let us suppose that the decision to be made was what present to buy for a sick classmate. Suppose, further, that a book was one alternative suggested, the argument being that one could learn from it, and that tickets to an upcoming concert were also proposed, but had as a negative point their high cost.

These data are entered by the teacher in a good points/bad points schema of the type shown in Fig. 5.4 (top). The teacher then asks whether books also have a cost, gets an affirmative answer, and asks how we might show that cost applies to both. By the end of the primary division some children will themselves suggest putting common criteria as row headings, in this suggestion making a transition from a one-dimensional to a two-dimensional treatment of alternatives, as shown in Fig. 5.4
(bottom). We infer from this act that such learners have adjusted their mental representation of the decision-making process, and our own experience indicates that they are then more likely to use this advanced schema in their subsequent decision-making.

A PIDAS explanation of the goings-on here is that a partial record of the mental actions involved in making the transition is stored in memory and is activated when the intellectual task recurs. Also, we have known cases where the definition of a concept arrived at by such an interactive process has been quickly reconstructed decades after the actual wording of the definition has been forgotten.

This sketchy account gives little more than the flavour of a method of teaching that has also had dramatic results in achieving in a few hours a transition in complex skills such as causal reasoning or decision-making that may take several years to complete without such intensive intervention. In our experience, such constructivist teaching\(^5\) is neither widely practiced nor done effectively when attempted. The great challenge it presents is to sense the current content of the learner’s mind from his ongoing behaviour and to respond instantaneously to this, rather than moving through a rehearsed script. The mental flexibility this kind of interactive teaching requires perhaps gives partial support for the popular notion that “good teachers are born, not made”. Yet whatever an individual’s limitations in this regard, systematic use of the other, more planned components of the model for the teaching/learning process will allow all motivated people to increase significantly the growth-fostering impact of their interactions with others.

**Deepening And Broadening The Concept Of “Intrinsic” Motivation**

As indicated above, motivating the student is the first task in the instructional cycle, and professional teachers have made
a distinction between “extrinsic” and “intrinsic” motivation. Extrinsic motivation refers to marks awarded on examinations, praise and ridicule for superior and inferior performance and, in our not-too-distant past, threatened or actual application of the “hickory stick” or “strap”. Intrinsic motivation, though a somewhat more elusive term, refers generally to the satisfaction that results from the actual learning itself.

The Model For A Complete Person usefully extends and clarifies the idea of intrinsic motivation. To start, the model assumes that learners seek to maximize the positive feel of their consciousness. In the process of positive outflow, the learner’s positive affect cumulates as he acts on an important goal, subordinates other activities to its pursuit, constructs a plan capable of arriving at the goal, calls up and puts to use subordinate skills required to implement the plan, and finally, achieves perceivable success. So a teacher’s invitations to learn something will motivate the student only to the extent that the latter can sense such positive outflow and affect occurring. Obviously, if he sees no prospect of such good feeling in addressing a particular topic it is “irrelevant” to him, and if he anticipates failure there will be little intrinsic interest. But if the prospect of good feeling is present, and the student as a result is motivated to proceed with the learning encounter, the skilled teacher who is aware of the growth transition the student needs to make can manage instructional details so that the learner has to grow to reach the desired endpoint (learning objective).

The challenge for the secondary school teacher particularly is how to devise learning episodes in which the mandated content of knowledge disciplines can result in the prospect of positive outflow. When we consider the mathematics teacher’s obligation to teach to all students such things as a procedure for finding the square root of a number or how to solve quadratic equations, we can readily grasp the enormity of the school’s motivation problem. In the only large-scale studies we have
been able to find, a majority of Canadian adolescents said they didn't find the secondary school curriculum to be relevant to their lives and they would prefer to be somewhere else than in school.

How Can We Improve The General Level Of Teaching In Our Society?

Teaching is increasingly recognized by thoughtful analysts as a major determinant of human development. Yet observation of efforts to teach in schools, the workplace, the public media and the home leads to the most pessimistic conclusion about the general level of teaching in our society. Indeed, if we were to analyse such attempts at teaching, we would rate most efforts at the lowest level on each of the components of the teaching/learning process.

As a start, simplistic notions of what learning objectives are possible and desirable lead to the pursuit of only the least complex. Then, in part because identified growth paths are lacking, even these inadequate objectives are pursued with teaching methods that fall far short of the most effective strategies. These things considered, it would be remarkable if the typical attempt at teaching had ten percent of the growth impact that this investment of time by the learner could and should have.

A Growth Scheme For Teaching

The remedy is to treat teaching as a social skill whose importance to human progress rivals the ability to read and calculate. This would require that we (i) first develop a growth scheme for teaching that applies from the earliest and simplest to the most sophisticated and complex manifestations of that process; and
(ii) then stimulate the development of the teaching skill of designated groups to levels deemed sufficient to support the optimal development of all members of society.

Following the strategy for constructing growth schemes described in Chapter 5, we would first locate or develop a model for the teaching/learning process. In view of its history and widespread acceptance, we will take the model visualized in Fig. 6.1 to be adequate for our purpose, although we would incorporate the Model For A Complete Person within the ovals representing the teacher and learner. From this point on, the term MEP will refer to the enriched model for the teaching/learning process.

The second step in the strategy for constructing a growth scheme is to define plausible levels of engaging the components of MEP. We now face the problem that, if we included all the components of the embedded Model For A Complete Person, we would end up with two dozen or more potential dimensions in our growth scheme. This is far more than even a professional would be able to deal with, let alone the larger public we want to become more expert in teaching. So a great simplification is necessary.

We begin by recognizing that different life roles demand widely varying levels of teaching performance.

**Citizens collectively**
At the least complex level, a young child intends to convey his wants to his caregiver. The successful carrying out of that intention changes the caregiver’s behaviour, and so constitutes “teaching” in its literal sense. As the years pass the individual’s interactions with others become increasingly complex and so do the things she has to “teach” others—i.e., the intended learning outcomes she brings to her encounters with them. For example, although seldom viewed this way, the courting male is trying to engender a very positive attitude toward himself,
and acts in ways deliberately chosen to convince the female that he has desirable characteristics. Although strutting your stuff and beating your chest were effective teaching strategies for our animal predecessors, a demonstration of the possession of higher levels of being now seems likely to bring the male’s “instructional program” to a successful conclusion.

**Parents**

As “the child’s first and foremost educators” parents are expected to “raise”, “bring up” or “socialize” their children. When it was assumed that serious intellectual learning could not begin before entrance to grade 1, the parents’ task was to inculcate by modelling (a form of teaching) the common social values and principles, and to undertake such language and number experiences as would get the child “ready” to profit from the school’s instructional program. But with our new understanding of the huge learning potential of very young children, parents should now be expected to go beyond readiness by teaching the beginning skills of reading, number usage and causal reasoning to their preschool child. It has been repeatedly demonstrated that this can be done without placing major demands on the parents’ time.

**The teaching profession**

The teaching profession’s essential guarantee to the public is that the licensed teacher can execute the instructional cycle at a satisfactory level in the individual “lesson”—a sustained learning encounter that will usually comprise a number of intended learning outcomes. One of its broader measures of teacher growth is that they can design effective instructional units for increasingly longer periods of time, such as units and courses. Another is that they can use effectively the most potent teaching methods for the learning objectives in their instructional units. Still another is that they can successfully teach the more
complex cognitive objectives, such as problem solving or critical thinking, that are currently beyond the instructional capacity of parents, employers and other social agencies. The authors would add to this competence in teaching intellectual empowerment strategies that combine these complex skills—such as the DITB scheme presented in Chapter 7.

**Holistic development teachers**

These are individuals who transcend the typical competent professional by effectively and cumulatively engaging most dimensions of the learner in a single teaching episode. Although there are many possible variants, we think the best approximation to this ideal is found in the behaviour of mothers exceptionally committed to the development of their young children. Later in this chapter we describe the schema that seems implicit in this level of performance.

These considerations produced the column headings in the growth scheme for the teaching/learning process shown in Fig. 6.4. The levels for engaging each component resulted from a combination of experience and common sense. The component processes in this case are implied by the criterion chosen to judge their maturity.

**Needed Training Inputs**

Obviously it would take a large, coordinated effort to significantly move teaching skills in our culture upward through our growth scheme for teaching. This effort should have been initiated by the time a learner enters school. It doesn’t take much imagination or skill in observation to know that young children have a desire to show and tell, and to help. We need to introduce the language of learning and teaching much earlier in life, and make these processes the object of self-conscious study and skill building. Opportunities to learn and practice the
more demanding forms of teaching in one-to-one mentoring situations exist throughout the school years. It seems neglectful not to use these opportunities to let all students learn the basic teaching skills that responsible citizenship calls for today, while allowing the identification of those whose special teaching aptitudes and interests show promise for professional teaching.

In the last two sections of this chapter we explore three special aspect of this training problem. These are the need for and nature of effective parent training, fostering the holistic development teaching strategy, and the role of Faculties of Education in upgrading the teaching process in our culture.

<table>
<thead>
<tr>
<th>Complexity of learning objective that can process through instructional cycle</th>
<th>Number of learning objectives whose impact can link/cumulate</th>
<th>The most intensive teaching strategy that can bring to bear on learning objectives</th>
<th>Levels of being capable of activating in teaching cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facts</td>
<td>Each learning objective treated separately</td>
<td>Provide opportunity for behaviour called for in objective to be used</td>
<td>Physical/cognitive primarily</td>
</tr>
<tr>
<td>Procedure</td>
<td>Several outcomes linked in a lesson/lecture</td>
<td>Reinforce more mature behaviour when it occurs</td>
<td>PLUS</td>
</tr>
<tr>
<td>Information</td>
<td>The set of objectives generated by elaboration of unit topic</td>
<td>Tell how</td>
<td>Learner values</td>
</tr>
<tr>
<td>processing skill (reading, calculating)</td>
<td>The objectives in the sequence of topics that make up a course</td>
<td>Tell how while showing how (modelling)</td>
<td>PLUS</td>
</tr>
<tr>
<td>Problem solving/inquiry strategy</td>
<td>Provide opportunity for behaviour called for in objective to be used</td>
<td>Existing schema retrieval and stimulated internal expansion</td>
<td>Learner principles</td>
</tr>
<tr>
<td>Complex performance regulating schema</td>
<td>Reinforce more mature behaviour when it occurs</td>
<td>Tell how while showing how (modelling)</td>
<td>PLUS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Existing schema retrieval and stimulated internal expansion</td>
<td>Learner self-transcendent connection</td>
</tr>
</tbody>
</table>

**FIGURE 6.4 A growth scheme for teaching.**
Parent training

An important application of CSHDE-linked teaching concepts would be to programs intended to enable parents and other primary caregivers to be more effective in promoting the growth of children. This is a large and growing enterprise of great social importance, driven by the understanding that the parent is, indeed, the child’s first and foremost teacher.

The most common approach to parent education at the end of the first decade of the 21st century is to hold workshops around topics of concern such as safety, nutrition, behaviour problems and sleep. The emphasis is on telling about, a method of transmitting knowledge that has no necessary carryover to parental skill development. The discussion is most frequently accompanied by a derivative set of dos and don’ts. For a topic such as child safety, separate lists are eventually advanced to cover every major activity that a child might engage in, every environment in which that engagement might take place, and every sort of potentially harmful mechanical, chemical or biological agent that could be found in a particular environment. Lists of safety tips, predominantly matters of common sense, have so spiralled out of control that many thoughtful persons now ignore them. To our knowledge, the data we have on the effect of this kind of parent instruction suggests modest improvements in parenting skills at best, and frequently no effect at all. Participant satisfaction scales speak only to the pleasure experienced and not, objectively, to improvement in parenting effectiveness. To reiterate the main point of this paragraph, the emphasis of the plethora of parenting courses that has emerged in the past two decades would seem to do little to enhance the kind of skills parents need to be effective teachers of their children.

Chapter 5 suggests a much more potent alternative for developing parenting skills. In regard to protecting the child, for example, this approach would be to have the parent recall
a recent event in which safety was a matter she had thought about, and to report her recollection of that thinking. This is listed by her instructor as the account is given, yielding an initial representation of the parent-learner’s implicit mental model for safety.

This initial model is fleshed out through the use of additional examples, some provided by the instructor—until the stage is reached at which further instances produce no new elements. At this point, the mental model has incorporated the essence of the mother’s safety-mindedness learning from her life experience. Armed with this model, and given some individual coaching, the mother could become skilled in figuring out “on the spot” what safety precautions would be needed in any of the innumerable situations the child is likely to encounter.

**The Holistic Development Teaching Strategy**

It may be hard to believe that any human teachers, or many godlike ones, have ever reached a level of teaching described by the top values in each column of Fig. 6.4. What appears to be the ultimate challenge is drawing all the learner’s human dimensions into the learning episode, challenging most, and fostering the growth of at least some. Yet we believe some good human approximations to this high standard are possible, one of which we have named The Holistic Development Teaching Strategy (HDT) because it seems to meet that ultimate challenge.

Our first attempt at describing a schema for this process, constructed from data we obtained by observing development-minded mothers interacting with their children and applying the schema construction strategy described in Chapter 4, is presented as Fig. 6.5.

This schema can be thought of as a general strategy with many subordinate strategies that need to be adapted to the situation and the moment-to-moment happenings of the
Pre-encounter
1. Reaffirm intent to maximize growth support in upcoming encounter.
2. Recall priority growth transitions in the upcoming encounter.
3. Recall generic transition strategies [reinforcement; modelling; enactive].
4. Assemble strategy-related resources, including time.

Humanise the ensuing encounter
1. Make welcoming/friendly vocal contact as soon as client comes within visual/auditory space.
2. Engage at sensory level in as caressing/intimate a manner as circumstances (age/sex/relationship) allow.
3. Project further positive valuation by positive comment on appearance/status.

Activate/reactivate secure attachment/trust
1. Soothe/attend to any perceived hurt.
2. Anticipate/tend to any physical need.
3. Locate/settle in space.
4. Initiate/respond to narrative updating.

Engage transition
1. Note existing focus of attention/interest/concern.
2. Determine potential link to predetermined or extemporaneously-conceived growth transitions.
3. Activate interest in proceeding.
4. Determine present level of performance in relation to schema to which transition relates.
5. Begin to enact transition strategy [opportunities; reinforcement; modelling; enactive].
6. Constantly monitor cues that you need to revisit earlier steps.
7. Revisit as required.

Celebrate achievement of/movement toward transition
1. Acknowledge progress and share credit.
2. Make a commitment to continue in later encounters.

FIGURE 6.5  The Holistic Development Teaching Strategy.
encounter. We can get some sense of the complexities involved by describing the transactions that occur when skilled, growth oriented mothers assist children to address the inescapable focuses of their lives: self (dressing, feeding...), others, nature and work/play.

We will take as an example the mother and (two-year-old, toilet-trained) child’s interaction as she “dresses” him in the morning. If this is the first contact of the day, the mother will pursue some or all of the components in “humanise the encounter” and “activate/reactivate secure attachment/trust”.

What happens when the mother gets to the point of making a growth transition is not easily written down in steps, and what we have included under “engage transition” provides only the barest logical skeleton. We now try to put some flesh on these logical bones. More fully described, the process of dressing means to get the child's pyjamas off, and put on his underpants, pants, shirt, socks, and shoes—not necessarily in that order. We concentrate in what follows on the “putting on” part.

The reason the mother is able to put the child’s clothes on is that she knows how to do this for herself. More precisely she has in her head a “mental model for the process of dressing” that she uses when dressing herself. This model is more general than a step-by-step procedure, because she may vary the order in which she puts clothes on, depending on the circumstances (e.g., if the floor is cold, she will likely put her socks on first).

At first the mother carries out the process of dressing for the child (dresses him), but her intent is that the child will progressively take it over himself—freeing her for other duties, perhaps dressing a newly arrived baby. This transfer from the mother “doing for” the child to the child “doing for himself” is brought about in an intermediate “doing with” stage, in which the child is encouraged to (i) do better the components of the process that he can already do at least minimally (e.g., he can
put his socks over the end of his foot, but doesn’t pull them up); and/or (ii) take on new components (e.g., put on his pants).

As these physical interactions are proceeding the mother is constantly talking to the child, and these utterances can be referenced to different levels of the child’s being. At the simpler cognitive level the mother is increasing the child’s vocabulary (stock of concept meanings) by naming each item of clothing as it is used. But if we think of the dressing process going on over a period of days, the child will come to see that the word “sock” is the name of a class of objects from which different items are drawn each day—an exercise in the practical utilization of classification skills (and the basis of logic). In addition, whenever the child says something that relates to the ongoing dressing process, the mother can use the technique called language expansion to enlarge and add complexity to the sentences he uses. For example, if he says “sock blue”, holding one up in his line of sight, the mother might reply, “Yes, these socks are blue”.

At the same (simple cognitive) level the mother is developing a sense of order, an important part of number sense—and she may well be teaching ordinal counting (“first we …, second, we …”). At a more complex cognitive level she will also (perhaps intuitively) try to convey some sense of the overall process within which these specific dressing steps are undertaken, perhaps by giving a rapid verbal or gestural summary of the steps involved before the process begins or by laying the day’s clothes out on a bed or chair in the order in which they are to be put on. In doing these things she is fostering the first intimations of a getting dressed schema.

The parent can also start to build the intellectual foundations for empowerment by modelling the “doing important things better” strategy. When the child’s attempt to perform a step fails to produce the intended result, the parent could say, “Well let’s try to do it a different way, and see what happens”. If the parent makes it obvious that she is just changing one factor in
the process, while keeping others constant, she is articulating the schema for determining cause and effect. As time passes, the child will be encouraged and expected to perform such little improvement experiments himself before calling for mother’s help or having a tantrum.

Moving to higher levels of being, some of the mother’s language will be intended to encourage (“You can do this!”) and reinforce (“What a big boy!”) any steps the child takes toward greater maturity. These may also be thought of as appealing to and enhancing the child’s self-appreciation. At the same time, the parent’s acknowledgement of the child’s success is an essential culminating event in the child’s experience of outflow—he tried to do something better, he did it, a significant person (a person whose approval elicits good feeling) acknowledged it, and he is very pleased with himself—as well as a bit more confident that he can do even more. That is to say, his sense of self-efficacy has grown.

We engage the child’s sense of rightness or fairness when “What a big boy” is followed by, “Now Mommy doesn’t have to do it for you, and can dress your baby sister”. “Doing what you can for yourself” becomes a child-understandable ethical principle.

Finally, the child’s self-transcendence level, or the sense of positive connection to a larger force (in this case Mother), is strengthened when the mother conveys that her positive regard for him is unshakable, even during the inevitable frustrations that will occur (for both parties) in the dressing episode, and the parent’s sometimes required firm insistence that a recalcitrant child do for himself what he prefers his mother do for him (i.e., that he engage in ethical behaviour). Such insistence, coupled with providing any help that is needed, has come to be known as “authoritative parenting”—a “parenting style” that bodes well in comparison with “laissez-faire” and “authoritarian” styles.
The foundation for the mother’s unconditional positive regard is her tacit understanding of a conceptual tool that follows from her conception of a human being—and her use of it throughout her interaction with the child. Suppose, for example, the mother accepted as valid the dimensions/levels of being described in an earlier section, and recognized, in addition, a continuum of positive actions that might be taken in regard to each. As a result, there would be in her mind a two-dimensional description of the potential domain of hurtful and helpful actions of the sort captured in the ODND.

The mother’s enactment of unconditional love is her unflagging vigilance that unnecessary hurts will always be avoided and basic needs met before and during the enactment of the task focused encounters of the lived day. The child’s understanding that he is unconditionally loved derives from his experience-derived perception that his mother can be relied on to behave this way. It is important to note that the mother’s holistic engagement of the child goes beyond what is said to be required for “firm attachment”—namely, “sensitive attention to the child’s distress and needs”—by exploiting in addition any opportunity for growth. The child’s growing appreciation that the outside world of adults can be relied on to expand his competence, and thus elevate positive outflow, raises his engagement of “strange situations” from exploration to the anticipation of growth.

The preceding analysis of what most people would think of as an uncomplicated task of childcare reveals that, when carried out at the most sophisticated level, this process can in fact stimulate learning and development at all levels of the child’s being as the child progressively masters the essential tasks of his everyday life. It can, therefore, progressively enhance the child’s ability to generate positive outflow and sense of self-efficacy in engaging the inescapable focuses of his life—the foundation of “mental health”. An important key to promoting mental health,
then, would appear to be to enhance the primary caregiver’s ability to execute the process that we have called the Holistic Development Teaching Strategy (HDTs).

In closing this section, we want to reiterate that the best that teachers and day care providers can do in the group learning situations in which they are required to work can only approximate to a limited degree what HDTs can deliver in the hands of a competent, caring parent. When a teacher or daycare provider has to divide her attention among many students, she cannot carry out the close monitoring of the child’s moment-to-moment cognitive and emotional states that is required in holistic teaching. So we should not deceive ourselves into believing that these young children are better off from the perspective of holistic development in kindergartens or “quality” day care programs where group instruction is unavoidable. This can only be the case when the parent has not reached a level of maturity needed to carry out HDTs to some minimal standard.

Today, our predominantly materialistic outlook (i.e., our desire for the best of all things material) requires that both parents work in many families. Nonetheless, thoughtful caring parents will not be willing to, in effect, let others raise their children—especially under circumstances that cannot possibly support their optimal development. So they will acquire the skills that will enable them to carry out the Holistic Development Support Strategy in the time they do have for one-to-one engagement with their young children—in this way giving the idea of “quality time together” both substance and developmental impact.

**Needed supports for the Holistic Development Teaching Strategy**

There are many reasons why mothers could find it difficult to carry out this holistic growth-supporting encounter. A comprehensive external factor is that the trivializing of child nurturance as “babysitting” has meant that we have not
HOW CAN WE IMPROVE THE GENERAL LEVEL OF TEACHING IN OUR SOCIETY?

created the attitudes and social infrastructure that would be needed to support its expert execution. For example, habitual exhaustion, resulting from the necessity to take on thought-out child nurturance as an additional task, without respite from normal homemaking chores and part time employment, in itself significantly reduces the level at which this essential process is carried out in our society. The mother’s lack of physical and mental energy means that the needed subtle, ongoing observation of cues from the child will be dulled, that the internal processing required how to determine “the optimal next step” will be limited, and that the ensuing parental actions will not be deftly undertaken. Impatience, an upward spiralling of anger, and an impulse toward rough handling—all of which decrease the prospects for positive outflow for the child—can easily be fostered in this situation.

There will be similar consequences when the mother is distracted by other homemaking demands or a hostile home environment, and chronic poverty cannot help but aggravate both. A society that was fully aware of the typical mental and physical state under which the holistic growth-stimulating encounter is attempted, and the devastating consequences for the realization of human potential, could easily solve this problem. For example, it could fund enough respite time for every mother to engage in the full scope of self-nurturance activities defined by the ODND. In a later section we discuss how a neighbourhood-based early learning hub could facilitate this goal, as well as provide other needed inputs for upgrading parenting.

From the parents’ perspective, the most plausible explanation for their inability to enact HDTS is a lack of the knowledge, skill and attitude required to carry off holistic learning and development within the demands of childcare. Inborn natural maternal instincts have been thought to be as sufficient in the human world as they appear to be in the
animal world, so that even today, understanding of human development is not part of the compulsory school curriculum. Again, remediating inputs for this generation of parents of young children would have to be delivered through some still-to-be-created neighbourhood hub that is accessible to the primary caregiver within the lived days of themselves and their preschool child.

One challenge will be to enhance the mental models that guide primary caregivers’ interaction with young children to the level of sophistication called for in the holistic growth-supporting process, then to coach the use of these enlarged schemas in context until their use is internalized, and finally to use them within the broader strategy that we have named HDTs. This goal will be approached in a succession of small steps, and progress within this growth path will vary with the quality of input and the aptitude and commitment of the caregiver. Because of the scale on which this must be attempted—with all new mothers requiring such assistance—trained peer parents, mostly volunteers, seem the most viable social mechanism for making a dint in this pivotal task of realizing children’s human potential.

The details of the needed peer parent coaching follow from the previous account, and appear to involve five main phases:

1. Retrieving and upgrading the primary caregiver’s conception of a human child. A recent mentoring project has demonstrated that the notion of levels of being can be generated with able grade six students.

2. Developing an ODND from this model and the strategy of making the left-to-right sweep through it a habitual act by the caregiver (i.e., first responding to actual/potential hurt; then meeting basic needs; then enhancing competence in
engaging life tasks, and finally empowering the learner to continue this enhancement on his own).

3. Making evident, and habituating the use of, basic generic schemas for generating optimal procedures at each phase of this sweep. An example would be a generic schema for heading off injury, or for teaching.

4. Coaching the optimal rate of transfer of the schema from the caregiver to the child in a three-stage progression from doing for, doing with, and coaching the child’s doing for himself. What is optimal will be difficult to determine, but it certainly entails keeping the stress periods inescapably linked to learning as brief as possible, while ensuring that all episodes conclude with enhanced positive outflow for the child. This is where sensitivity to the child’s stress cues becomes critical.

5. Coaching the parent’s use of her now-internalized schema within the more comprehensive HDTs. The intended outcome, again, is a general rise in the level at which the holistic growth-supporting encounter is executed in our society, and there will be great variations in the degree to which primary caregivers respond to instruction. But it is surely a reasonable assumption that all of us can learn to do better if we see the importance of doing so.

We can anticipate that many child development professionals will be opposed to this proposal, because it will move into the volunteer arena coaching practices that presently support a large and growing paid workforce. The argument will be that it will be hard to find peer parents that can do the coaching called for, even with training. That may turn out to be the case, but our effort in that direction should draw optimism from the observations
of the HDE Group that some mothers intuitively practice what cognitive psychologists understand as “language expansion”, a powerful technique for advancing young children’s language competence. It is reasonable to believe that many parents have become skilled in the use of the holistic growth supporting teaching strategy, and that the explicit rationalization of their practice, via mental models and the procedures they generate in context, will make that practice accessible to instruction on a broad scale.

The pessimistic view that significantly raising the level at which HDTS is carried out cannot be accomplished once young people become parents may turn out to be true—because there simply isn’t the time or resources to develop the couple’s understanding and skills involved. In that case, we should build toward that competence gradually and as part of a mandatory school curriculum thrust on fostering human development.

**The role of authentic faculties of education in raising the level of teaching in our society**

Earlier we reported how the training institution for classroom for teachers was transformed in a few decades from normal schools to university based, self-styled Faculties of Education. To gain status in a traditional university environment, education department staff had to imitate the behaviour of other academics: In a first stage, they had to earn doctorates, publish articles in scholarly journals, and through these means move up through their university’s academic ranks. Then they had to become involved in graduate studies, first at the masters and then at the doctorate level. There is no greater adornment to the academic ego that to be able to refer to “my doctoral students”.

Unfortunately, in their effort to emulate university academics many good secondary teachers of our acquaintance who had been attracted to post secondary teaching soon seemed to abandon those elements of teaching that had made
them effective—especially addressing students at their present level of development and moving them forward at their own pace. The content of their courses was what their academic discipline had assigned to that topic and the pace at which it was “lectured” (logically expounded) was determined by the allotted instructional time slot. The theory applications approach was paramount, and the teachers-turned-academics apparently thought that recounting currently prestigious theory gave them some kind of intellectual prestige as well. We haven’t reviewed the literature on the reaction of teachers-in-training to this approach in the past couple of decades but we remember that prior to that it was almost unanimously judged to make little or no contribution to their classroom teaching performance.

As the change in teacher training institutions described at the beginning of this chapter proceeded, the part of society’s total teaching program that the Faculty of Education impacted on was limited basically to what happened between a classroom teacher and her group of learners over the course of the individual lesson. The new university-based teacher training institution was properly called a Faculty of Classroom Lesson Teaching. It made no input into the culture-maintaining and advancing teaching undertaken by parents, employers, the other professions and human beings generally in their everyday interactions. Its only visible attempt to raise teaching quality outside the classroom was made with academics in the other departments of its own university, the post secondary equivalent of a classroom teacher, and we know of no instance where this effort was welcomed or acted on.

Common sense tells us that an authentic faculty of education should be the conceptual leader in raising the level at which the teaching act is performed in our society. Given the situation that we have described we clearly need to be talking major reform, or, better suited to the academic mind, major re-
conceptualization. We believe that CSHDE concepts could be of great help here, as follows:

1. The first step in this reform/re-conceptualization would be for each faculty to build its own conception of a human being, the entity whose growth its graduates are paid to stimulate.

2. Outstanding teaching competence, the ability to perform effectively within this model, should be the overwhelming criterion for admittance to the Faculty. The Faculty should contain the region’s recognized “master teachers”—individuals capable of giving demonstrations of the most advanced teaching methods for the most complex objectives—as the Masters in the original normal school were expected to do.

3. Faculty staff should be involved in instructional improvement projects, in which new techniques are designed and field-tested. These should be undertaken in collaboration with their teacher/masters students in the settings in which these students are employed in teaching roles.

Although this may sound like pure fantasy, such an arrangement actually took shape in Northeastern Ontario when the Ontario Institute for Studies in Education opened a field office in that region whose professorial staff’s only obligation was to help local educators improve their classroom practice. The graduate courses that emerged reversed the theory-practice paradigm and focused on the design of curricula that successfully pursued complex cognitive objectives. OISE staff headed the teams that developed new teaching strategies and as a matter of principle tried them out in classrooms themselves before their graduate
teachers were asked to run the professional risk of attempting them.

As for impact, it was certainly the case that previously unaddressed complex cognitive objectives made their way into the curriculum guidelines of regional school boards, especially in the elementary Environmental Studies and secondary subjects in which inquiry and problem solving skills were paramount. And many graduate student teachers demonstrated that they could teach these sophisticated intellectual strategies effectively and incorporate them into instructional episodes of unit length or longer. As acknowledgement of their quality, components of the conceptual scheme that grew with these interventions, such as the Interdisciplinary Skills List, were used in major curriculum projects in large southern boards and board consortiums and even made their way into several Ministry curriculum guidelines.

In other words, we would claim that this experiment, which unfortunately terminated when the field centre thrust was no longer funded, demonstrated that our two indicators for the impact of teaching in a society—the complexity of the learning objectives pursued and the sophistication of the teaching methods employed—could be significantly affected in a targeted teacher population with a limited investment of faculty staff (essentially, two full time professors in the Northeastern project). We can surely then be optimistic about enhancing the broader impact of teaching in a region if this became the long range mission of a regional Faculty of Education with its 50 or more staff, and the regional agencies who engage in teaching/learning encounters with their clients became part of this venture.

The circumstances today may be ripe for such a radical departure from habitual practice by Ontario Faculties of Education. They are presently training at least twice as many new teachers each year as Ontario schools actually need, and
this has allowed them to build staff numbers in equal excess. But the public is now on to the teacher over-supply and will readily read “big waste” into it. The government will have to act.

One suggestion on how to put excess Faculty staff to work is to add an additional year to basic teacher training, but doubling what has for decades been declared essentially useless is likely to be interpreted as a weak attempt at humour by thoughtful observers. And because most Faculties have already extended their graduate programs to the doctoral level there is little opportunity to absorb excess staff in that direction.

But if Faculties of Education were to become the real engine of the upgrading of the teaching function in all agencies and situations in which teaching is the principal force for human development, then the legitimate demand for input would tax for decades the manpower resources of even our overstaffed institutions. After all, we start from a baseline of teaching knowledge and skill that is about as close to zero as one can imagine. A thoughtful government should quietly find out whether any Ontario Faculty of Education is ready to accept a broader responsibility for the quality of teaching in our province, and should financially support any plausible, practical plan it puts forward to bring this about.
IDEAS TO REMEMBER FROM THIS CHAPTER

1. Although teaching is increasingly recognized as a potentially powerful stimulant to human development, the present level of teaching in most human encounters is very low—rarely reaching above telling and therefore nowhere near as effective as it could be.

2. A first step in improving teaching in our culture is to understand it as a generic process that can be applied in human interactions in all life focuses—rather than a set of specific rules or pedagogical tricks. It appears that such a Model for Educational Processes (MEP) did not appear in our Faculties of Education until the 1990s.

3. Concepts developed in this and previous chapters allow the enrichment and more potent execution of teaching strategies. Among these concepts are:
   i. Teaching as an aspect of comprehensive human nurturance, hence the need to attend to existing hurt and unmet needs before sustained learning can be expected;
   ii. The concept of positive outflow, which sheds much light on the elusive topic of motivation to learn;
   iii. The strategy of topic elaboration, which generates sequences of cumulative learning objectives, a prerequisite for designing learning units;
   iv. The concept of growth schemes, which allows teaching to focus on precisely defined growth transitions;
   v. The pattern of ideal development in advancing systems (PIDAS), which suggests a sequence of increasingly effective ways of fostering growth transitions.
4. The long-range, substantial upgrading of teaching in our culture will require that it be taught as a skill from the earliest school years and that upward movement within a growth scheme for teaching be acknowledged and rewarded. The upgrading effort must be guided by a growth scheme for the teaching/learning process that ranges from the earliest and simplest to the most sophisticated and complex manifestations of that process. By the time young adults become parents they should be well advanced along this growth scheme, far beyond the “teaching is telling” mindset that characterizes present-day parenting.

5. An authentic Faculty of Education would be the logical conceptual leader for enhancing the impact of teaching in its region. To play this role it would have to: commit to this mission; build its own model of the teaching/learning process; acquire staff who can work effectively within this model, which includes demonstrating the teaching of the most complex educational objectives using the most sophisticated instructional methods; and undertake teaching projects in sites in which its graduate students are employed in teaching roles.
IN PREVIOUS CHAPTERS we have identified five dimensions of human development, described growth patterns in these dimensions and discussed effective teaching methods for moving learners to higher levels of performance. In this chapter we deal with “empowerment”, which will mean to inculcate the strategies by which an individual can take control of his own development, hence to stimulate his continuing personal growth. An individual will be said to be empowered to the extent that he has acquired these strategies.

Without empowerment, an individual cannot hope to realize his optimal development. Good teachers can take us a long distance along our growth path and mentors can guide us further. But it is only we, as individuals, who have the motivation and time to push ourselves to our personal limits.

In the following sections we:
i. Define a series of potential meanings for empowering that are based on increasingly more explicit and complex uses of task schemas;

ii. Describe and exemplify strategies for the levels of empowerment that involve the more complex uses of schemas;

iii. Identify the subordinate skills that are drawn upon in the strategies described in (ii) and suggest how they should be programmed over the developmental stages; and

iv. Speculate on the prospects for: (i) developing empowerments for attributes for which there is no clear schema basis—such as in values, use of principles and self-transcendental connection; and (ii) important empowerments still to be realized in our culture.

**Going Beyond Common Meanings Of Empower And Enable**

Well-known dictionaries give the term “empower” the following meanings: (i) to authorize, license, or give permission to; (ii) to supply with the means to do something; (iii) to enable. The terms empower and enable are commonly treated as synonyms, and for variety of expression we will alternate our own usage throughout this chapter.

We can make these meanings more precise as well as demonstrate needed extensions by referring them to schemas or mental models—for example, models for engaging particular life tasks. To start with something simple, yet increasingly important in today’s world of pandemics, we can think of a schema for hand washing, which, from common life experience, we would understand to have these components: wet the hands; apply soap; scrub; rinse; dry; and tidy up.
A Sequence Of Potential Meanings For Empowering

We now describe a comprehensive sequence of sensible meanings of empowering someone that we could relate to that process:

1. We make the individual aware that he has the right, or someone has the right on his behalf, to enact the schema in particular situations. The giving permission aspect may seem unnecessary or even absurd for hand washing, in that it is hard to imagine that such permission would be denied. But to take a different example, the right to enact a car-driving schema is only conferred at a particular age and in specified situations.

2. We provide him with material resources needed to enact the process, or the means to acquire these resources—in our hand washing example such things as water, soap and a towel.

3. We teach him a particular procedure for doing the task that is suited to the place where it is normally carried out—in our example the details of wetting, soaping, scrubbing, rinsing and drying most appropriate in the place where the hands are normally washed. This would happen when a mother washes her child’s hands in the family bathroom and he internalizes a motor image of the actions performed. These “empowerments” certainly allow the individual to wash his hands to an adequate standard in the normal hand washing location. But it is not likely to do that in a new situation such as in a school, place of business, restaurant, or public washroom.

4. So we further empower/enable someone to wash his hands by teaching him a schema for hand washing, that is, a process: a) whose components are stated as variable
quantities for which optimal values can be set by “reading” the situation in which the process will be undertaken; and b) is general enough to handle all the hand washing situations the individual is likely to encounter during his lived days. These situations would include all washrooms used by his immediate and extended family and close friends—people to whose viruses the individual has become at least partially immune. This schema development would begin with the young child if the mother repeatedly named the components of the schema as she executed them (e.g., “First you get your hands wet”...).

5. We teach him a strategy for adapting his existing hand washing procedure to enable him to do the task better. For example, evidence of visible dirt or revelation by a medical swab that the hands have residual e-coli would call for modification of the values normally assigned to one or more components of the hand-washing schema. The strategy would be to identify components of the taught schema that could be given different values, and try these changes until the desired result is obtained.

6. We teach him how to construct a schema, or mental model. This would enable him to deal with any newly encountered life task for which a schema had not already been taught. In addition, even when a schema has been taught to him, there are occasions when the individual will need to add components to (reconstruct) it. In our hand washing example, this will be necessary when the individual is using public washrooms, where he is at risk of re-contaminating his hands by touching soap dispensers, taps and doors. The additions in this particular case sometimes include such comical male ‘manoeuvres’ as opening the washroom door by pushing it with the knee, elbow or foot.
7. We teach him a strategy for integrating the task schema with others. In our example he might use such a strategy to integrate his hand-washing schema with those for other aspects of body washing, thus forming a larger and more effective schema for body hygiene. Such integrations can also be thought of as doing two tasks at the same time, commonly referred to as multitasking in today’s parlance.

8. We teach him a strategy for significantly restructuring the task schema. Although not necessary for simple tasks like hand washing, it may be important for more complex tasks such as developing a fundamentally different approach to a job or to a marital relationship.

An argument can be made that levels 5 and 6 would be reversed in some circumstances. We retain the order presented above in the belief that it reflects the most common occurrence. We will refer to 5, 6, 7 and 8 as “higher order empowerments”, meaning primarily that they require effort to learn and result in the ability to engage the task in a more comprehensive way.

We now need to determine if the preceding sequence makes sense with more complex processes, and as a test will consider (i) driving a car; (ii) teaching; and (iii) developing a friendship. It should be noted that not every level of empowerment in our sequence above will be evident in every real life example.

**Test (i): Driving a car**

Although it is not usually thought of in this way, driving a car involves the use of a schema by which we control such critical variables as the car’s velocity, and distance from other cars and obstacles in our line of vision. To enact this schema we first put the car in motion and then—by maintaining a moment-to-moment reading of the visibility, road conditions, traffic movement, and our own state of alertness and well being—make
continuing adjustments to these critical variables. So working through our proposed sequence of empowerments we would get this progression:

1. In Ontario young people acquire the legal right to drive a car at the age of 16.

2. Once the young person reaches this age, the family will usually give him access to the family car, for the purpose of learning how to drive.

3. Then a parent or older sibling will typically teach the young person how to drive—usually by teaching component skills of starting, stopping, steering and braking. This initial instruction will likely be carried out in very uncomplicated roadways and so be quite limited in its application.

4. Over time, instruction is likely to be given in a wider variety of situations, including unfamiliar ones (and when resources allow, the young person may go to driving school), so the actions become more generalized, forming components of a driving schema. So we can say that a schema has been taught, although not intentionally.

5. Through long experience, or if they are lucky enough to have thoughtful instruction, drivers learn how to assign different values to the components of their driving schema to deal with changing driving conditions such as fog or icy roads, and to develop a smoother, more efficient ride.

6. Many seasoned drivers try to integrate their driving schema with a schema for carrying on a conversation, eating a snack, or texting friends—although the latter is now illegal because few can do it safely.
7. Professional race drivers make radical transformations of their everyday driving schema to gain advantage under highly competitive conditions (self-empower).

**Test (ii): Teaching**

As a more complex test of our proposed sequence, we can consider how we empower a person to become a professional teacher. We can abridge our account by observing that the College of Teachers confers the right to teach (level 1), while school boards provide both the opportunity and essential resources—a classroom and teaching materials (level 2).

So we will move to level 3 in our sequence of empowerments, at which point the teacher-in-training acquires an acceptable set of procedures for teaching the common learning objectives with typical classroom students from Faculty of Education staff and seasoned teachers. To realize level 4 empowerment, CSHDE proponents have themselves developed with teachers a Model for Educational Processes (described in Chapter 6)—which allows them, according to their own accounts, to more readily adapt their procedures to changing circumstances (such as different groups of learners).

In more advanced in-service, aimed at level 5 empowerment, we have taught teachers a practice-upgrading strategy called “action research”. This is an application of the process described later in the chapter for doing an important task better by modifying values assigned to one or more components of the schema for engaging it. According to teacher accounts, this modification of existing practice frequently involves the adaptation of the instructional cycle components to better suit unique and varying characteristics of successive cohorts of learners. For example, moving students with learning challenges into the mainstream requires teachers to modify the rate at
which the new learning is introduced and how it is presented and reinforced.

The fundamental restructuring of the teaching schema (level 8) is very difficult because teaching practice is tightly constrained by Ministry of Education guidelines. But some innovators have radically expanded the instructional role of parents and classroom volunteers, which has in turn required them to restructure their teaching/learning schema.

**Test (iii): Developing a friendship**

Constructing nurturant relationships is something every parent wishes they could empower their child to do. We can easily identify the permission level of empowerment (level 1) occurring when parents allow or don’t allow their child to play with certain other children (playing with being essentially what “being a friend of” means for young children). Parents will often provide the resources needed for the friendship (level 2), for example, when they invite Tommy’s “little friends” over for his birthday party. And when they organize the set of games (activities) and refreshments that are to constitute the enactment of the making-a-friend process for that occasion, they are in fact teaching a procedure (level 3) that many will carry into adulthood as a conventional way of “entertaining” their adult friends.

To reach level 4 empowerment, we could certainly think of teaching the nurturance matrix and generic nurturance strategy as a schema and strategy respectively for “being a friend to”. Level 5 could be realized by teaching a more advanced model for creating progressively more nurturant relationships, as shown earlier in Fig. 5.6.

We can at least acknowledge the need for a level 7 empowerment in which adults learn how to integrate their friendship, spousal and work schemas into a satisfying lifestyle.
And many friendships and relationships periodically require radical reconstruction (level 8) if they are to thrive.

From these examples, we have sufficient confidence in the overall sense of the sequence of empowerments to propose it as a general scheme, a terse summary of which we provide in Fig. 7.1 for easy reference. As can be seen, we have grouped our eight levels of empowerment into four categories, defined essentially by the complexity of schema use. However, we are not treating the subcategories as ordered to allow the fact that this order can in some cases be reversed. And not recorded in Fig. 7.1, but treated in the chapter, are empowerments for tasks for which schemas are tenuous at best.

Again, an argument can be made that levels 5 and 6 would be reversed in some circumstances. We retain the order presented in the belief that it reflects the most common occurrence.

<table>
<thead>
<tr>
<th>Granting permission</th>
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<tr>
<td>1. Giving the individual permission to engage the task</td>
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<table>
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<tr>
<th>Providing the individual with the prerequisites for engaging the task productively</th>
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<tbody>
<tr>
<td>2. Providing the financial and material means</td>
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<tr>
<td>3. Teaching a procedure for engaging the task productively in a particular set of situations</td>
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<tr>
<th>Training strategies that enable the individual to continually improve task performance</th>
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<tr>
<td>4. Teaching the individual the task schema</td>
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<tr>
<td>5. Teaching a strategy for using the task schema to upgrade the existing procedure for engaging it</td>
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<tr>
<td>6. Teaching a strategy for constructing a task schema</td>
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<th>Enabling radical schema transformations</th>
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<tr>
<td>7. Teaching a strategy for integrating schema</td>
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<tr>
<td>8. Teaching a strategy for radically restructuring a schema</td>
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</table>

**FIGURE 7.1** A sequence of potential empowerments for performing tasks.
Identification of what we have called higher order empowerments (i.e., 5 to 8 in our sequence) is not meant to suggest that they are actually carried out in most human lives. For the most part, political action in support of expanding empowerment in modern society is focused on 1-3, while empowering individuals to perform essential life tasks, including paid jobs, is overwhelmingly level 3. The inescapable result is that personal development rarely achieves what it must if our civilization is to realize its potential.

Two Kinds Of Personal Development For Which The Individual Takes Charge

If we return to the Model For A Complete Person (Chapter 2), we can see that human development can take place in two different components of that model. First, we can think of human development taking place in the systems and processes that underlie different levels of being. Certainly an individual can reach a higher level of physical fitness, or can raise her level of performing a particular motor skill. She could act to broaden her mind in some general sense, or improve a particular intellectual skill such as making decisions. She might travel abroad in the hope of expanding her values. And she might even undergo a program aimed at spiritual development. All these are forms of personal development that many people actually undertake.

As a second category, we also want to empower the individual to continually upgrade his engagement of the major focuses of life: other people, work and nature. This would result from his more effective use or continuing enlargement of the particular ODND schema he brings to bear on these focuses, or better performance of the strategy for moving through the ODND as a whole.

These two ways of expressing development can each be implicated in the engagement of the schema for life tasks. For
example, any enlargement in the system underlying a level of being enables the better execution of the schema for one or more life tasks, as when a general increase in manual dexterity enables better hand washing, handwriting, and a host of other psychomotor skills. In addition, we do a better job at hand washing when we engage deeper levels of being. A perfunctory, recipe-like wash, done mainly to escape criticism, would involve predominantly the physical level of being. A wash driven by the principle (i.e., engaging the principles-using level of being) that your hands should not contaminate another person’s vulnerable spaces, and should therefore be very scrupulous, would be considered of higher quality. Washing as preparation for religious practice (involving the self-transcendent/spiritual level) would in many cases be more comprehensive and, again, considered to be of higher quality. Similar accounts can be given for driving a car and building a relationship with another human being. Our conclusion is that the analysis and interpretation of improving one’s performance at any task almost always reveals the engagement of higher levels of being, and the consistent engagement of these higher levels is a form of personal development.

We believe that most human beings instinctively pursue both the enlargement of the systems underlying levels of being and those involved in life processes, although they may neither conceive of their actions in either case as attempts at development, nor proceed very far with this development.

**Generic Strategies For Higher Order Empowerments**

The examples in the previous section are sufficient to demonstrate the possibility of higher order empowerments that were described as: using a known task schema to upgrade an
existing procedure to do tasks better; constructing a schema for engaging life tasks; integrating schemas to create more comprehensive mental structures; and radically restructuring an existing schema. We now discuss these in turn.

**A Strategy For Doing Important Tasks Better** *(Level 5 Empowerment)*

The specific way we carry out a task in a situation results from assigning particular values to the components of the schema for doing the task that are best suited to that situation. In our hand washing example, how much soap we apply to our hands, or how thoroughly we scrub them on any occasion, depends on our reading of the particular circumstances—particularly on our assessment of the prevalence and danger of germs. So our specific procedure for any task will vary from situation to situation.

But there can be a seemingly different reason why we would undertake to change the values we assign to the components of the schema. This reason is that not that we have found a specific fault in the outcome but that we feel that tasks can always be done better. One way this feeling might be activated is to find out that someone else is getting superior results in a similar situation. Examples would be finding out that a neighbour’s coffee tastes a lot better than ours, or that his zucchini crop vastly exceeds ours. In these cases we would be motivated to do these particular tasks better if they are important to us. Because it is plausible that any task could be done better, and that important tasks should periodically be done better, a strategy for doing this would seem a useful tool in our collective effort for human advancement.

The authors’ proposed strategy for doing important things better was derived from an analysis of successful life experiences, using essentially the schema building method described in a
later section of this chapter. Its components are italicized in the following account, and reflect a significant expansion and rewording of the summary mental model described in Chapter 4 as “The schema for continually upgrading performance”.

1. **Feel impetus to improve performance in some task** This motivating thrust is necessary if action is to be taken. It may come from a sensed inadequacy in some aspect of the product or with the way a component is being carried out, from an external demand to do better, from seeing the task better done by someone else or from a persistent perspective that every task can be performed better.

2. **Mentally activate the currently known schema for the process** In the optimal case, this will be a schema that captures our own life experience.

3. **Identify manipulable process variables** These are variables by which components can be described, as for example “the quantity of soap applied” would be one variable for the “apply soap” component of hand washing.
   3.1 **Identify variables that you could change and that are common-sensically or theoretically correlated to the outcome variable you want to influence** Sometimes research or theory indicates this correlation; sometimes life experience, and sometimes intuition.
   3.2 **Assign new values to manipulable variables selected for change** This could be a single variable, but more likely it will be a set of variables whose collective set of assigned values constitute the new “treatment”. This assignment might again result from formal research results or it might be suggested by observation of practices that are getting better results (sometimes described as “best practice”).
4. *Determine what change the new treatment has on the output or product*  In the ideal, as when the attempt to get a better outcome is being made by a medical treatment, this is done by a controlled experiment in which subjects are assigned randomly to groups getting the “treatment” (experimental) and groups getting the existing assignment of process variables (control). When the treatment is long-term, such true experiments are rarely possible, and resort has to be made to advanced statistical methods to remove the effects of “uncontrolled” variables. In the use of DITB by ordinary people in everyday life, we have to be satisfied with the best approximation we can make to a true experiment.

5. *Decide if the gain from the new treatment exceeds the cost*  Costs here are not only money but also the extra time that may be needed to execute a more complex treatment.

6. *If the new treatment is chosen, mentally reset the values for the components of the process*  In subsequent engagements of the process, these would be the preset values to get the results realized in the experimental test.

We have called this strategy Doing Important Things Better (DITB), and will use that acronym throughout the remainder of this book.

Carrying out the DITB steps would be relatively straightforward if we were motivated to do more effective hand washing, as we might be if faced with a serious outbreak of flu or other virus-born epidemic. Likely variables that would be reset beyond their normal values would be the virus-killing strength of the soap, the amount of rubbing and the temperature of the water. To test impact, we would have to have a way of testing residual hand viruses, for which we would probably need assistance from a local health centre.
So “science-based” hand washing improvement is likely to be an experiment conducted by a health unit with a group of volunteers, with a description of the treatment and its result issued as recommendations to citizens about hand washing. What proportion of the adult population is likely to use this recommendation would depend on individual cost/benefit analyses, because the new treatment is very likely to require more time than most people take to wash their hands and perhaps greater soap costs as well.

The use of the DITB strategy for better engaging life tasks becomes much more interesting if we try to upgrade relationships. As suggested in Fig. 5.6, the amount of nurturance administered to a partner increases every time we (i) initiate our nurturing from a deeper level of being; (ii) extend our nurturing of that partner to another life context; or (iii) add another ODND generic strategy to our nurturance. Each of these are themselves processes or sets of actions that could be decomposed into a large number of variables, so in the end we could probably list hundreds if not thousands of manipulable variables that could be related to the quality of the product that we are trying to increase—such as the total positive affect or happiness of the participants.

This might suggest that improving the quality of relationships is much too complex a business to think through rationally. Yet some couples do try to do this and, indeed, some are willing to pay hefty fees to get professional advice on how to do it. Obviously we will need to prioritize the variables whose values we choose to adjust in our relationship. Here is our judgment on which variable adjustments should be given highest priority to get the best result:

i. *Reducing the amount of unnecessary hurt* Honest examination reveals that all relationships have episodes of hurtful interaction, usually unintentional and too
frequently unanalysed and un-discussed. This can be a personal physical habit that a partner finds repulsive, a too hasty criticism or dismissal of a partner’s ideas, or a thoughtless act that gives the partner unnecessary work. Affronts increase in their negative affect as we move up the levels of being, in that deriding a person’s values, principles and/or religion is likely the deepest cut of all. As for a remedy, simply expanding our interacting schema to give at least passing attention to the possible negative impact on others of what we are about to say or do will often cause us to modify our intended action, or not carry it out at all. Of course, we improve on our ability to anticipate hurt as we learn more about the content of levels of being of others.

ii. *Enhance dialogic skill* Poor communication is probably the most commonly cited reason for marital disharmony and breakup. Communication can be undertaken at different levels, starting with “discussing” (free flowing presentation of personal ideas), then moving on to “debate” (arguing for a preferred course of action), to “dialogue” (cumulating and integrating personal knowledge and insight to arrive at a best shared solution). Discussion quickly becomes fragmented, and debate almost invariably becomes hostile. But mature dialogue remains forever fresh and a constant source of new shared intellectual property—as well as a prerequisite for the development of shared schemas.

iii. *Periodically try to do a “one column to the right in the ODND and one level of being upward” move* On examination, this is what is usually meant when a friendship is said to have “deepened” or “broadened”. That would mean, for example, that in a relationship in which the partners protect each other from hurt, meet basic needs, and help recovery from illness, they seek in addition to teach each other, to co-learn new
skills, and to engage in the co-development and upgrading of the schemas they use to engage life tasks. That any of these would enhance the quality of the relationship is a research-based hypothesis that needs to be tested to actually work for the given couple in a particular life situation.

**A Strategy For Constructing Schemas For Engaging Life Tasks (Level 6 Empowerment)**

The strategy the authors used to construct the mental models for ODND tasks was described in Chapter 4, but its substance is restated here in more general language.

1. Recall an instance in which the task was carried out successfully, i.e., when a conscious or subconscious schema was executed to your satisfaction. If this was something you did yourself, you can proceed to step 2 with greater assurance.

2. Write down the component actions in language that seemed appropriate to the situation.

3. Think of a second successful instance, preferably more complex.

4. Repeat step 2.

5. Synthesize the list of actions:
   5.1 Line up similar actions.
   5.2 Express aligned components in a more general term (i.e., as a variable quantity) so that it includes both cases.
   5.3 Add new components when an item in the second list can't be aligned with an item in the first.

6. Repeat steps 1-5, adding new examples until no further changes in wording are forthcoming.

These steps would be unproblematic in building a schema for hand washing. In step 5.2, the wording of the first step in
the initial, home-based example might be “turn on tap”. But in a second example, the water stream in a public washroom might be initiated if we simply “hold hands under water faucet”. A suitable generic wording would be “activate water stream”.

Turning to our teaching example, our earliest examples of successful teaching (step 1) probably involved showing a sibling or young friend how to operate a toy. In step 2 we knew what we wanted them to do, we told them how to do it, we watched them do it, and we retold them if we didn’t like their performance—thus employing a four-stage teaching schema of some generality. In later examples, we became more conscious that performance in relation to learning outcomes could exist at different levels and that we had to be conscious of the learner’s entry and intended exit levels. We also became conscious that learners had often to be motivated to learn, and that new learning had to be practiced. The first of these new examples prompted the addition of the “growth descriptions” component to our primitive teaching/learning schema (as step 5.3) and the second the identification of the subcomponents of the “teaching strategies” component. The remaining components of the mature schema for the teaching/learning process—such as deconstructing goals into specific levels of objectives, sequencing these objectives, obtaining appropriate resources and using them in the best way, and constructing tools for assessing the amount of learning—are not normally added to teaching schemas unless a person has had teacher training in preparation for planning formal lessons.

The analysis of the previous paragraphs makes us confident about the ability of the strategy we have proposed to construct schemas even for tasks of some complexity. Indeed, it was the strategy employed by CSHDE contributors to develop the schema for teaching presented in Chapter 5 that was originally called A Model For Educational Processes (MEP).

Nonetheless, as a final test we want to try to apply our strategy to the far more difficult human task of developing
relationships, primarily outside the immediate family, that are not only enduring but that also grow in “quality” over time. For CSHDE proponents the quality of a relationship would be measured by the amount of mutual nurturance it delivers. The complete execution of our schema-building strategy would require that we recall and align the steps of a series of relationships in each of which nurturance was generated in increasing quantities over time.

For many, the first opportunity to establish relationships outside the family occurred when our mother, thinking of our need to “socialize”, arranged for us to play with another preschool child who lived in our neighbourhood. When this initial encounter was “fun” (i.e., generated positive affect) we thought the person to be “nice” and asked to play with him again. If we had been able to analyse what made it pleasant, we would have thought of actions “our little friend” (Mother’s language) took that CSHDE proponents would now locate within the “range of nurturant actions” of ODND. Evidently we had envisioned the likelihood of a sequence of fun play encounters. Thus a relationship with potential for some duration was established. Of course if the encounter produced bad feeling, for example if the person encountered turned out to be “mean”, then there would be no follow-up.

When the get-togethers continued, the need for stimulus variation prompted us to vary our activities or try new ones, and as the total set grew so also did the amount of positive affect delivered by the relationship.

In these first extra-familial friendships we find the basic elements of the schema for constructing relationships that deliver progressively increasing amounts of positive affect. These elements are (i) arrange an interaction under favourable circumstances; (ii) from this interaction appraise the affect-generating potential for a continuing relationship; (iii) make a continue/terminate decision based on that appraisal; (iv)
periodically attempt to enlarge the affect delivered (keep the relationship “fresh”) by enlarging the interaction in some way, and repeat from step (iii) as required.

When we analyse relationships in our life that actually grew over time, we observe that our positive affect experiences were drawn from a growing set of sources. When we went to school we were engaged in a compulsory pattern of daily interaction with a group of about 20 children, but the opportunity existed to choose whom we would spend our free time with. Kids who were good at a particular sport would come together at recess or after school for a game. Others found their friends in a musical group or a science club. As friendships continued, the interaction would often spread beyond school. School friends were sometimes invited into one another’s homes and interacted with one another’s families. With the greater freedom of movement that comes with increasing age, friends could carry out their habitual pattern of activities in a broader range of locations. To put a label on what is happening, we might think that all the previous examples involve an “extending” of the relationship.

With adolescence and the emergence of the capacity for abstract and idealistic thinking, friends’ discussions of daily goings-on evoked, and to some degree influenced, their values and principles. This engagement of levels of being more profoundly rooted in their psyche might well be thought of as a “deepening” of the relationship. And as they became closer emotionally, they would tend to bring to bear on their friend an increasing range of the ODND nurturing functions. We might think of this as “broadening the scope” of the relationship, or of “broadening” it for short.

Some adolescents today devote significant amounts of their free time to such self-transcendent causes as environmental protection, the reduction of illiteracy, or the elimination of bullying—activities by which friends further deepen and broaden their relationship.
We recognize that our “extending”, “broadening” and “deepening” descriptors of the enlargement of relationships are rather arbitrary and that these terms might have been differently defined. In fact they all refer to situations that might be described generically as individuals intending to share or pursue a particular common interest or value. We are using them primarily as shorthand descriptors for different kinds of pursuits that can be carried on under that general intent—as component actions in a strategy for the creation of relationships that deliver progressively larger amounts of nurturance to the participants.

To fully execute our strategy for constructing a schema for such relationships, we would align the lists of components retrieved from our various examples, after each alignment generalizing the name of the component so that it subsumes all the specific names to that point. This multistage process would require more detailed comment than most readers would find interesting enough to try to follow; however, the product of that exercise is reported in Fig. 5.6.

**Integrating The Schemas For Engaging Important Life Tasks (Level 7 Empowerment)**

Two forms of integration have long been recognized by educators. Vertical integration meant the accumulation of knowledge and skill within a school subject, as when arithmetic was incorporated into algebra, much of which was then incorporated into calculus. This happened over a period of time, and the individual who reached the end point then possessed the knowledge and skill taught over the sequence.

Horizontal integration meant bringing the knowledge and skills taught by the school’s different subjects at the same time into productive relationship in the learner’s mind. This would mean, for example, that the student could make meaningful
connections between the problem solving strategies he was being taught by his different teachers.

These basic distinctions seem to apply at all levels of being. In the physical domain, as an example of vertical integration, we could think of hand washing as being part of a more complex process of body washing. Then we could think of body washing as part of a process of meeting basic needs, which in turn can be seen as part of comprehensive self-nurturance, and so on. This cumulative acquisition would again go on over a long period of the individual’s life.

A first step in the strategy for vertical integration would be to identify the superordinate task in the intended integration—which for purposes of our analysis will be body washing. Using the procedure for constructing mental models, we could identify the main phases of that process by recalling when we or others had performed that task at a high level. These phases would suggest the order in which body parts should be washed—a common rule for a health care worker washing a patient is to move from cleanest parts to dirtiest parts, but when we wash ourselves we would likely want to start with clean hands. In any case, the mental model for body washing will draw in, incorporate, or integrate the hand-washing schema within the larger body-washing schema.

Although not evident in our simple example, such vertical integration will sometimes require major adjustment in the subordinate schema. A common example would be the modification of the basic mental models for getting through the lived day that each spouse would have to make to create that special partnership called marriage.

As a simple example of horizontal integration, we can think of how washing our hands, cleaning our teeth, combing our hair, and applying makeup are put together in the episode that might well be designated “getting ready to face the world”. While this does not require a sophisticated mental model, integrating
the schemas for much more complex tasks certainly does. In the next chapter, we will more fully address the challenging and as yet unsuccessfully engaged task of integrating the services of the many agencies that hope to contribute within the same time period to the well being and development of common clients—on analysis, each unsuccessful attempt a failure to integrate the different schemas from which each service is generated.

Of the many such integrations that we could attempt in our lives, the most important and demanding would be integrating our superordinate schemas/mental models for engaging major life focuses so as to maximize support for optimal development.

It would be a wild and extravagant claim that even the cleverest, best educated and best-intentioned adults in our culture have been empowered to do even a minimally satisfactory job in what may be considered life’s mega-task. About the best we have seen is when a couple (for example, the Curies, the French husband and wife who discovered the properties of radium) have a common, passionate, life long, self-transcending interest, to which all focuses of their life are subordinated.

For most of us, the necessary focus on our own well being and development is balanced in the commitment of time and energy between our spousal relationship, our family, our job, our engagement of nature, and our other recreational interests or hobbies. One measure of general failure is that fully half of spousal relationships cannot survive given what is allotted to them in this distribution. However, the shortfall can go beyond time and effort to basic incompetence in dealing with the prerequisite schema and lower order subschema described in a later section.

CSHDE envisages the need for a super-schema for integrating the schemas brought to bear on the separate essential life focuses. So far, we have only given it a name, calling it the individual’s master plan for living his or her life. If put into words, it could be understood as the individual’s “code
It must be grounded in a superordinate purpose for living that infuses, and prompts us to do our best in, each focus of life separately, and the larger thing that comes from their integration.

To be defensible, it must contain, espouse or proceed from what are taken to be universal principles of conduct, such as: (i) helpfulness; (ii) fairness; and (iii) respect for the "authority" of each of logic, science and PIDAS-driven intuition. These are principles whose use we would wish by all other human beings.

To be practical, it has to give direction or support to the activities that make up the lived day. To be universally applicable, age appropriate approximations must be possible.

CSHDE concepts, schemas and strategies allow us to add useful detail to these prescriptions. To start, a person who devoted his life to the advancement of PIDAS could also be a sincere adherent to any philosophy, secular or religious, that espouses self-transcendence. This person should work from the ODND, his behaviour would of necessity express helpfulness and fairness, and the use of ODND schemas integrates the valuable insights of spiritual orientations, logic and science. Because these schemas can be instantiated by reading the immediate situation, they apply constant guidance to the engagement of tasks that make up the lived day. Although their growth scheming has yet to be undertaken, there is no reason at this point to believe that this could not be done.

We stop short of synthesizing these elements into the superordinate schema that is to constitute the master plan for living our lives. Yet we can at least intuit that in it the lived day must begin with, and frequently refresh, the reconnection with PIDAS, that it must envisage and prioritize the ODNDs into which that day we will infuse positive action, and that it must recall and instantiate the ODND schemas that are to be
employed at any moment. The quality of any human life will be proportional to the levels at which these tasks are engaged.

**Restructuring Schemas (Level 8 Empowerment)**

By restructuring a schema we mean spatially rearranging its components and thereby changing their logical connections. Other definitions could include adding new elements to a schema, but in CSHDE this is already dealt with in our model for constructing schemas, so we are primarily interested here in the radical adjustments that individuals and groups make from time to time in the schemas that they bring to bear on important facets of their lives.

Such radical restructurings don’t happen very frequently at times when individuals and groups are basically satisfied with what they are and what they do—in such circumstances leaving it to maturation to make the schema enlargements that are taken to constitute normal development in their culture. For those committed to realizing optimal potential, though, the question must always be present in their preconscious, and periodically brought forward as an impulse to action, that PIDAS could always be more fully or completely realized if we just went about an important task in a fundamentally different way. This attitude is always present in the mind of the inventor, and is probably a major impetus in technological advancement.

In the last half-century, we have seen some significant restructurings of existing schemas in the human relationships field. In other words, non-traditional relationships appear to be becoming more common now. Many would even claim that there has been a fundamental restructuring of the relationship between men and women—a radical departure from the “woman as man’s helper” metaphor that still prevailed in the mid-1950s. In this restructuring, women were empowered to play a larger role in matters beyond the immediate family. Less disputable
would be the claim that the traditional model that saw Dad as wage earner and Mother as homemaker has undergone extreme restructuring during the same period.

For some this restructuring occurs in a mental state called incubation, which is envisaged as that phase of the creative process when unconscious forces put together what the conscious, rational mind cannot.¹ For others, restructuring occurs during meditation or contemplation, states in which we become receptive to input from sources not accounted for by our reason- and-sensory evidence-driven sciences. The implication of this line of thought for our procedure for empowering is that we should all periodically put aside our ongoing satisfaction with the way we currently address life tasks, be honest about the problems we have not solved, quiet our rational minds, and accept for possible usefulness any schema modifications that occur to us.

Another idea advanced for restructuring schemas is to playfully restructure the components of the existing schema and determine if the resulting product would have any utility. For example, we could randomly choose to enter our Model For Intelligent Self-Direction (Chapter 2) at any of its components and initiate action from that point. Thus a couple might start at the Evaluation component, reflecting on recent episodes in their ongoing relationship and appraise the kind and amount of nurturance each receives. Then they might go to any other component to see what implications this appraisal had for its enactment. For example, if they went to the Goal component, they might try to determine what goal seemed to be implicit in their actions and how this could be changed. Or they might look to the Plan component to identify the schema that seemed to be governing their interaction, and how it might be enlarged or better implemented.

In what areas of human activity would CSHDE indicate that we should attempt radical schema restructuring? Several
are suggested by what has been said in previous chapters. To start, there is something drastically malformed in an inherited, traditional educational schema in which parents provide “readiness” for school learning, and then teachers completely take over the learner’s intellectual development, actively discouraging parental input. Seriously misoriented is a secondary school curriculum, vertically integrated within the academic disciplines, that is considered irrelevant to their life interests by a majority of students, who feel imprisoned by it. And dangerously underdeveloped is the charitable description of a school curriculum that does not help our young acquire the concepts, strategies and schemas that are critical in establishing nurturant relationships and as a consequence are marginally competent parents. We could extend this list and find some existing wrong-headed or underdeveloped schema being applied to every level of being, every category of nurturance, and every life context. Yes, there is much scope in our time for fundamental schema restructuring.

Subordinate Skills For Higher Forms Of Empowerment

The ability to continually upgrade the schemas that govern our engagement of life tasks draws on a vast range of less complex skills, each of which might be said to contribute to empowerment as we have defined it. Or from another perspective, each set of such skills defines a simpler yet prerequisite kind of empowerment. Thus if we wish to maximize empowerment—defined as the ability to foster one’s own optimal development—then we must do what we can to foster and accelerate the appearance of these prerequisite, more elementary forms, as well as the meta-schema that calls them into action.
As indicated in the Introduction, over its long period of
development CSHDE has been self-consciously concerned with
what it considered the prerequisites for intellectual autonomy,
moving from the most elementary skills to the most complex
mental structures. In the following section we briefly sketch
some stages in this progression toward increasing complexity
and autonomy, being concerned in each case with the kind of
added empowerment contributed by each additional skill level.

Primitive Intellectual And Emotional Competencies

In the newborn’s consciousness there must be, from time to
time, a sense of discomfort occasioned by hunger, and also a
representation of an external object—the nipple of breast or
bottle—that, when acted on by the innate sucking reflex, brings
at least relief if not comfort. Moreover, this need satisfying object
seems to appear whenever a more powerful object (Mother)
comes in response to his cry. In this primitive sequence we can
find the roots of much of the child’s intellectual and emotional
beginnings. First, the child learns that Mother and other objects
don’t cease to exist when they pass out of his sight—what is
called “object constancy”. Then he learns to distinguish Mother
from other objects that come into sight but don’t bring distress-
reducing objects to suck—acts of observation and matching, the
foundations of primitive classification. When Mother appears
as the infant intones a spontaneous “ma-ma-ma”, she is in
the process of being named, as can other objects if the baby’s
attention is directed toward them and their name simultaneously
enunciated by the caregiver.

At a later stage the child may be encouraged to reach for
the satisfying object and soon discovers that the sequence reach,
touch and grasp has to be executed in the right order to get
results. Here we find an early example of what is called seriation,
and with it the completion of the set of skills that empower
the child, with parental assistance, to satisfy a basic need, and which, perhaps for that reason, have been called the “basic thinking skills”.

While stressing the cognitive components of this need-satisfying encounter we dare not ignore its emotional component. A vast literature on “attachment” speaks to how the mother’s “timely” attention to the child’s expressed feelings increases the probability of his believing that the world—with all its strange objects—is yet a place to be explored in expectation of experiencing positive affect.

Some mothers go beyond this standard piece of advice from the psychiatric literature. Recognizing that Mother cannot always come running at the baby’s first cry, yet wanting to avoid the child’s rage and its development-inhibiting consequences, these mothers signal their intention to come with a distinctive call of their own. When this expressed intention is invariably followed by the mother’s actual appearance, and all the needs satisfaction it brings, a baby learns that there is neither point nor need to become enraged. From the perspective of behaviourism, the mother’s voice has become a secondary re-enforcer of quiet waiting. From the perspective of cognitive psychology, the mother has fostered an enlargement of the baby’s “getting fed” schema that better empowers him to deal with a world in which the meeting of his needs will not always be the first order of business.

We can see in this account many opportunities for the observant mother to accelerate the baby’s ability to deal with development supporting needs—an elementary but essential form of empowerment. Fostering object constancy, naming objects, promoting simple classification and seriation have all proven to be fruitful areas for early intervention.
Combinations Of Basic Skills In “School Enhanced Skills”: Numeracy/Literacy

Traditionally, the first and foremost task for compulsory schooling was to foster the development of skill in the three Rs. The right to an education that taught these skills, the creation of schools where this teaching could take place, and the actual acquisition of these skills by the learner was, some century and a half ago, considered a prerequisite empowerment of citizens for living in a democratic society. These mental acquisitions allowed people to continue to learn on their own from books and other print materials and to become intelligent participants in the political process by reading newspapers and political pamphlets. Again, these are important advances in subordinate empowerments.

It has been shown that these school-linked skills can be decomposed into the basic thinking skills. For example, reading and grasping the meaning of individual words involves matching a visual image (printed word) with a sound (spoken word), then matching the sound with the stored image of an object or action (its meaning). Rote counting requires saying number names in sequence (seriation), while rational counting requires that each successive number name be matched with the successive element in the set being counted.

In CSHDE, both reading and a more broadly conceived number sense involve the use of schemas. For reading, there is a schema for the process of engaging print. For number sense, the schema is the number line and the up and down movements that can be made on it. At the present time these are explicitly taught by exceptional primary and junior grade teachers who have some understanding of the power of mental models.
**Problem Solving/Inquiry Models**

We move ahead to think of further empowering the young person who has completed the school’s primary division and has acquired the rudiments of reading, writing and arithmetic. Over the next six years (junior and intermediate divisions) this person must increasingly take over responsibility for his own protection, needs satisfaction, recovery from illness and learning—that is, for employing the schemas for ODND tasks with decreasing step-by-step guidance from teachers and parents. As we have seen in Chapter 5, embedded within these schemas are subschemas for decision-making, cause/effect reasoning and other forms of inquiry. The development-supporting impact of the learner’s, still assisted, execution of the schema for risk management, for example, depends on the sophistication or maturity of these embedded subschemas. Yet children typically enter into their adolescent years with marginally developed problem solving skills at best and as a result make very immature use of whatever schemas for nurturance tasks they have been taught by teachers and parents. As a result, they make impulsive educational, dietary and sexual behaviour decisions that have long-term growth-impeding implications.

The creation, testing and refinement of inquiry and problem solving models have been an early and continuing interest of many people who contributed to CSHDE. The opportunity and funding for this work arose when a Royal Commission on elementary education declared, in the late 1960s, that students had a right to learn as much as possible from their own inquiries, as distinct from simply being told. But schools had had little experience in teaching such skills, and for the most part simply let students go at it, with dismal results overall.

However, when students were taught visual models for logical/quantitative, correlation, cause effect and decision-making inquiries—important enlargements of their intellectual development—advancements in their performance were almost
invariably of a magnitude that caused teachers to say, “I didn’t
know learners of that age could think at that level”. As indicated
in the brief history of CSHDE located in Appendix A to this book,
our successes with these problem solving models stimulated
our unshakable belief that schools seriously underestimate the
rate and scope of development of which human children are
capable. Indeed, in our first experimental test, students in grade
6 who had received 30 hours of training performed at the same
level as untrained grade 12 students of comparable IQ. Equally
encouraging, trained grade 7 students from an “opportunity
class”, reading at grade 3 level, held their own on problem solving
tests against their age mates in regular classes.5

School-Fostered Acquisition Of ODND Schemas

As learners move through the school’s intermediate division
(grades 7-10), and toward early adolescence, they start to engage
in the kinds of troublesome behaviour we normally associate
with adolescence—smoking, drinking, use of drugs, dangerous
teenage sports, unsafe sex and faddish dieting being the most
frequently cited. Moreover, they are more frequently out of the
parents’ sphere of direct supervision. So it seems critical that
they be in firm possession of the self-nurturing ODND-linked
schemas. These need to be taught in a newly created, compulsory,
Life Skills, Personal Development, or Human Relationships
curriculum. When we say “taught”, we are intending that these
models be retrieved from the learners’ life experience and
worded in language that is natural to that age. Although we have
had no experience in attempting this, we have taught schemes
of comparable complexity to intermediate grade students. Most
recently, one of the authors retrieved a levels of being model from
grade six students and had them apply it in designing nurturing
activities for their role as mentors to younger students.
Parent-Supported Use Of ODND Schemas

We next envisage our intermediate grade students at home, during what is the last period when they are fully subject to direct parental supervision—up to this point expressed primarily as “family rules.” These rules have been generated from the parents’ own mental models for ODND tasks, likely unarticulated, and their reading of the situation in which they are to be applied. A vast literature on adolescent behaviour describes these as years of continuing conflict that is explained in terms of power—the teenager wanting more control insofar as their own behaviour goes, and the parents apprehensive about giving it.

A better basis for negotiation than the attempted imposition and rebuttal of rules would come from an explicit acknowledgement of the schemas from which these rules are generated, and the subschemas that are embedded within them. When learners have acquired problem-solving models, and schools have taught schemas for ODND tasks, it would then be possible for parents to coach and consolidate their use by teenagers. What is to be determined in their use are the specific features of the situation, which should be matters of verifiable fact, and how any existing rule should be modified to give the most development support in that situation. The thoughtful parent would share the lead in any needed rule modification with their son or daughter.

Modifying Schemas To Better Engage ODND-Linked Tasks

In their senior division years students should be taught the process called Topic Elaboration, described in an earlier section. This is a sophisticated schema for developing, organizing and presenting one’s ideas on a topic, a recurring task for university students. Several people associated with CSHDE have taught this scheme to their own children, and have seen its impact in
high praise from professors who again observed, “I didn’t think secondary school graduates could think at that level”.

With Topic Elaboration mastered, the transition to DITB is straightforward, the reason being that they involve the same set of inquiries.

### Constructing Schemas For Engaging Life Tasks

We next connect with our senior division learners as they are about to leave home in pursuit of post secondary education or employment. Although they may have been involved in the retrieval of ODND schemas from life experience, they now have to independently apply this strategy to all matters or tasks of importance, which in some cases are subschemas that will be embedded in ODND schemas.

For example, the post secondary student will need to come up with a schema for studying and for preparing for exams—both subschemas for the ODND task of promoting development through learning. But he will also need process models for such things as making new friends and maintaining relationships with old ones and parents, for managing finances, for living in new quarters with people who are not family, and for getting about in the new community. In a society attuned to optimizing development, the strategy for constructing such models would now be familiar from earlier interactions with parents. Parents who have had success co-engaging ODND-linked schemas with their teenagers and who themselves have the ability to construct schemas from life experience could be valuable coaches as their children begin the move away from home.

To bring this section to summary, we have now traced out a sequence of what may be thought of as “lesser empowerments” that provide the intellectual underpinning for the most complex kinds of schema construction and integration. Although we cannot point to any society in which this kind of path toward
optimal growth has even been attempted, let alone achieved, the authors are confident that it is easily within the realm of human capability.

**Empowerment For Attributes That Do Not Have An Evident Schema Base**

On review, our sequence of empowerments and associated empowerment strategies seem to apply only to behaviours that have governing schemas. Schemas allow us to apply DITB and hence to identify changes in the values assigned to components, changes that would identify the growth transitions on which we could focus our stimulation. These include complex physical and cognitive skills and the engagement of major life focuses. This is surely good enough, one might think, for a first effort.

But there are some troublesome omissions—in particular, empowering people to take over their own valuing, ethical (principle using) and spiritual (self-transcending) development. We have not identified a process for the engagement of these attributes to which we might apply DITB, and our growth schemes for them (Chapter 5) were very diffuse. So was it premature, a critic might ask, to cross multiply levels of being and necessary nurturant acts, as we do to define the ODND (that is, to assume that each of the nurturant acts can be applied to every level of being)?

It is evident, nonetheless, that some individuals do attempt to foster their continuing development beyond the physical and intellectual. A person might travel abroad in the hope of expanding her values through exposure to different cultures. She might attempt to continually “become a better person”—i.e., foster her ethical development—by devoting a progressively larger part of her personal resources of money and time to the well being of others. And she might seek spiritual advancement.
through participation in religious or secular personal ethics programs. Citizens in most Western civilizations at least are to varying degrees permitted, given the resources for and assisted to achieve these kinds of growth in all levels of being. In other words, they have available to them the first three levels of empowerment in respect to all dimensions of personal development. So the question is whether we can progress to higher levels in the empowerment sequence on all dimensions.

**Values Enhancement Empowerment**

Our goal in values empowerment would be that an individual would engage with increasing frequency and effectiveness those things that support the development of himself and others. These can be found in the direct nurturing actions of the ODND, which human beings must of necessity seek out if they are to optimally develop, and the indirect nurturing actions in the third dimension expansion of ODND identified earlier in Chapter 3.

A strategy for values enhancement might be attempted to fit this goal. Its broad steps would seem to be to:

1. Periodically clarify your espoused personal values by asking, for each level of being: what activities/things do I like to engage (make me feel good) that I think also benefit me (espoused values);
2. Determine how much of your time is actually spent engaging these activities (de facto values);
3. On the basis of 1 and 2, determine and rank order the discrepancies between espoused and de facto values;
4. Set values-enhancement priorities on the basis of the magnitude of this discrepancy;
5. Allot time to be exclusively given to each priority;
6. Give full attention to the valuing activity as it is being engaged—by eliminating potential distractions;
7. Choose activities to be pursued in the allotted time. These can be drawn from past practice or be newly conceived;
8. Deliberately bring deeper levels of being to consciousness within this full attention;
9. Afterwards recall this engagement and experience the resulting positive outflow.

This sequence fairly accurately reflects the experience and approach of one of the authors when periodically, he reflects on the present status of his own values (steps 1/2). Initially this took the form of simply thinking about the “things I like to do that I believe are good for me”. Now the inquiry is more systematically undertaken by asking this question in relation to each level of being. The first time he completed the first two steps, this author was literally shocked by the number and magnitude of the discrepancies. Most of the allegedly valued activities were actually getting very little personal time.

In step 3 listening to favourite kinds of music was invariably a big loser, even though it always made him feel good, a condition we now understand to generate growth-stimulating body chemicals. Usually he had narrowed his exposure to what came to him sporadically through radio and television, but did not make use of the much more diverse range of music available in his record, tape and disc collections, let alone from more modern digital technologies.

Music then become a high priority (step 4) to the extent that a day is now considered incompletely lived unless a significant period of time is allotted to listening to music (step 5) without distraction (giving it his full attention)—as distinct from just having it on in the background as he carries out some other activity (step 6).

In step 7, this author has deliberately sought to expand the range of music that gets his undivided attention, his belief being that most musical compositions involve some harmonious
coming together of musical elements, and thus constitute a form
of PIDAS—which if our hypothesis about its deep embedding
in the human psyche is true ought, intrinsically, to be pleasing.
This has proved to be true, although often requiring time for the
brain to discern the aural schema on which the music is built—
apparently a requirement for judging subsequent encounters
to be pleasurable, or even “music” (as opposed to “noise”). The
result has been a steady and still continuing increase in the range
of music sought out for pleasure.

The workings of step 8, though expressing a real possibility in
this author’s experience, is difficult to convey in words. When he
first hears a singing voice that has been judged to be of sufficient
quality to record, or rehears it after an extended interval, there
is the immediate thrill of a unique sensory experience that
sometimes causes him to say or think “what a beautiful voice”.
After this thrill has attenuated somewhat, he often finds himself
wondering what it is in particular that he likes about the voice—
in this phase activating his cognitive processes and intellectual
level of being. And the discovery of that special quality itself
raises or augments his felt valuation of the particular voice.

The mechanism of movement further up the levels of being
is more mysterious. The prose on record jackets, surely some of
the most effective efforts of eloquence in our language, will place
the voice among the greats of a century or a musical period. It
may speak of the singer’s special “gift”, intimating if not stating
that it is of divine origin. And the lyrics often themselves speak
of eternal love and divine intervention in human affairs. For
people deeply influenced by music, these factors somehow
combine in their consciousness to yield what they consider to
be a “spiritual” experience.

A post listening recall of the pleasure experienced (step
9) from listening to this voice seems likely to increase the
probability of its being sought out in the future.
**Principles-Use Empowerment**

In Chapter 5 we suggest that a person grows ethically when they (i) enlarge the share of their nurturance resources that are directed into the ODND of others; and (ii) treat others at increasingly greater remove from kinship or obligation in this nurturing way. So CSHDE gives individuals at least a crude growth scheme for ethical behaviour, and thus a set of plausible growth transitions.

Life experience tells us that growth in our use of principles (ethical growth) can often have a detrimental effect on personal self-interest, as we see today when prominent opponents of oil pipeline expansion across Canada are being portrayed as enemies of necessary economic expansion, with resultant damage to their reputations. As another example, we know of individuals whose principled care of increasingly fragile spouses turns into a 24 hour a day job, jeopardizing their opportunity for a quality life or even their own physical and mental health.

Stimulating growth requires that we have a reliable method of making growth transitions. We need a reliable method of getting individuals to make, on their own, the two kinds of nurturance transitions noted above. If we are in a teaching mode, we can model making these transitions ourselves, hoping that this may activate a hypothesized (PIDAS-based) internal instinct to reach out nurturantly to others or to draw elements together into larger structures at each level of being.

This reaching out to others seems more likely to happen if the modelling contains the rudiments of a schema for proactively “doing things for others” instead of just responding to opportunities to do this that present themselves—such as giving to Christmas funds to feed and gift needy children. We can imagine a family that under the parents’ direction builds a pictorial representation of family giving, showing what proportion of family income goes to supporting others for which it has progressively less responsibility. This picture can be
built up over the years to include non-monetary contributions of time and would at every stage be accompanied by a discussion of “what is a fair contribution for our family resources”. By their teens, and now making helping-others decisions on their own, we can reasonably hope that this now-automated schema will come forth and, with a reading of the individual’s situation, produce a specific “doing the right thing” plan for volunteer giving to others.

**Spiritual/Self-Transcendent Empowerment**

In Chapter 2 we gave spirituality the modern meaning of a sense of positive connection with an entity that extends in power and duration beyond our own individual life. The idea of empowering anyone to “grow” their spiritual dimension will seem strange to most who think that we just sort of absorb the content of such a dimension from our family or religious community as young children.

Yet there could be a schema of sorts for self-transcending behaviour. It would encompass the steps of intelligent self-direction, but surrender the dominant role in the goal setting, planning and reflection phases to the self-transcendent entity, leaving implementation to the follower. Indeed, in Bowlby’s attachment theory, the mother of the firmly attached child, as a result of timely, loving attention to his needs, comes to act as his ego (will) and super ego (reflective conscience). He in return “worships” her (holds her in the highest regard) and carries out her requests. In this behaviour we can see the basic elements of a self-transcendence schema in operation.

Maturity in using such a self-transcending schema would hinge on the ability to distinguish growth-supporting from growth-inhibiting transcendent figures. It is a pathetic perversion of the potential positive developmental impact of religions that human beings will self-transcend to religions that
instruct their adherents to throw away their own lives in an act of murdering others. Attempts to teach such a distinguishing process starts for many parents when their teenagers join gangs, clubs, fraternities or exotic religions and determining potential “bad influence” becomes an important task for both parent and adolescent.

In conclusion of this section, empowering individuals to grow their values, principles and self-transcendences is still a highly speculative and largely unachieved task, for which only the lowest levels of empowerment are reliably available. Yet there is sufficient anecdotal evidence and foreshadowing of schemas for these tasks to justify the inclusion of empowering in the ODND as a goal to be confidently pursued in the decades ahead.

**Empowerings That Need More Complete Fostering In Our Culture**

As a general summary, the more complex the life task, the less progress is made within the culture at large in moving up the empowerment scale. For example, most young children in present day Ontario would have their hands washed after using a toilet or getting them soiled in other ways, and from this would in time internalize a procedure for this task, thus covering empowerment levels 1 to 3. When the parent articulates these steps in general terms, she is in effect teaching a schema for hand washing (level 4).

We see minimal expression of higher forms of empowerment when we come to an important development-promoting cultural task, such as teaching, that requires the use of complex schemas. This is because teaching is almost invariably practiced by adults in ordinary life as an act of telling. Indeed, as indicated in Chapter 6, it is only recently that a general schema
for the teaching/learning process has appeared even in those institutions devoted to teaching, and many parents actually deny that they “teach” their children. Professional teachers who have been taught such a schema (level 4), or have progressively developed one on their own (level 6) can be very effective in using it to modify classroom procedures but few would attempt to deliberately transfer its mastery to their students, who consequently leave school with no larger empowerment to teach others than cultural permission to do so. Evidence that teaching schemas can be transferred at least in part came to the authors when a contributor to CSHDE taught his grade eight students a schema for defining concepts (i.e., for teaching themselves the meaning of concepts) and they subsequently held their own on this task with a group of adults with post secondary education.

Another huge failure to empower must surely lie in the area of building enduring friendships and, by extension, other kinds of relationships. It is not just that half of present day marriages end in divorce as that so few of those that do survive result in anything like self-actualization for the partners. We have so far failed even to develop a useful set of public concepts for relationships, let alone a schema for building enduring ones. We are on average many thought years away from spouses helping each other become their deepest and truest selves, the visionary goal for marriage proposed by the Bishop of London at the wedding of Prince William and Kate Middleton.

In the examples of the last two paragraphs, the empowerment of individuals really does not progress much beyond giving legal or social permission (level 1). We could generalize these dismal results to all or most tasks with complex schemas. But this abundance of needed higher order empowerment should not blind us to the fact that there is important work to do on lower levels of empowerment in our sequence. In fact, the attention of the world, and social reformers in particular, has been on such empowerments as allowing all children to attend school,
attaining constitutional rights for marginalized groups and giving women the same access as men to resources for personal development.

For our final example of needed empowerment we turn to the growing belief that the elderly in our culture need a better ending to their lives than they typically get. What happens at the present time is that the ability to maintain oneself at home requires increasing assistance as the years pass until a point is reached at which the elderly person needs the support provided by a long-term care facility. Unfortunately the staffs of such institutions have but a fraction of the time for each patient that would be needed to attend to all the dimensions that make up the human being. The actual care provided has been called “minimalist”, and its extensions beyond the physical, for example its intellectual support, has to be limited to what can be done in a group setting. Consequently, the care the elderly person receives need not support his intellectual interests, his values, principles or self-transcendent (spiritual) leanings. The declining elderly are increasingly treated like children, living in an environment created by people who have no real sense of their psychological experience of the world. This seems, somehow, the converse of empowerment.

The authors believe that their proposed sequence of empowerment levels could constitute a radically revised schema for the treatment of the elderly, in effect enabling them—rather than the institution—to be the major player in shaping their care program. In the following paragraphs we explore the consequences of this idea.

We can start by saying that the elderly certainly have permission to exert what influence on their care they would. Most innovative long-term care programs speak of the elderly patient as being actively involved in the care decisions that affect him.7 The problem is that usually by the time the elderly are put in long-term care facilities, their planning and rational decision-
making powers are considerably diminished through some form of dementia. Obviously the prudent will think through the matter of their care in the declining years long before they get to this point.

As for the needed financial resources, even the elderly person without savings or a pension will be entitled to a place in a long-term care facility. Most will be able to afford to upgrade this to a semi-private room in a government-run or government-regulated institution. More important and problematic is how much personal attention time has been negotiated with family or friends, can be purchased or could be provided by the volunteers who are currently being recruited by hospitals for service to their long-term elderly patients.

As for level 3 empowerment, hospital staff and family constantly try to teach the elderly person to accommodate to his declining physical abilities by the use of technological aids, for example to maintain the ability to mobilize by using a cane, a walker or a motorized wheelchair. We may, paradoxically, think of each such accommodation as a form of continuing development in that it enables the person to perform at a higher level in regard to a particular skill than he could without the aid.

This said, it is when we come to level 4 empowerment, in this case providing a schema for enhancing the quality of old age, that the strength of CSHDE shows itself. In the first place, long-term care is about nurturance, so the ODND becomes the immediately relevant conceptual tool. Long before a long-term care facility beckons, and hopefully at our peak development, we should have made an ODND appraisal of our life, identifying our preferred or most valued way of engaging each of our human dimensions. Maintaining these ways to the highest possible degree would then give a reasonable set of care goals no matter what stage our diminution had reached. On entry to long-term care, there would be a case conference in which the patient, the closest member(s) of his family and any volunteers
that the facility intended to involve in this particular care would determine what approximation to these valued ways would be attempted and make a basic working together chart to lay out responsibilities. Even if the patient had deteriorated beyond the point of rational contribution, his voice would still be the dominant one in the determination of care.

Re-establishing the patient’s voice is just the first step for an agency wishing to empower a quality ending to a person’s life. Executing an ODND-based scheme will require many times the one-to-one interaction that patients in long-term care presently receive and—given the already heavy burden of health costs—this can only come from trained volunteers. Our optimism about their availability comes both from personal knowledge of spouses who devote most of their time and energy to providing care for their ever more needy partner, as well as from innovative programs like Maximizing Aging Through Volunteer Involvement.

At some point the consideration of a better ending for life must address what some are now calling a “good death”. A potential main conflict arises from the difference between religious and secular views on the meaning of “good”. The religious view is that one dies well in reconciliation and favour with one’s creator. The predominant secular view is that a good death entails freedom from significant physical pain and a sense of personal dignity—and for some, the latter includes not becoming a burden on the financial and personal time resources of others.

In regard to the personal dignity component of a good death, CSHDE tells us that human beings have a sense of personal worth (dignity) at every level of their being. Our difficulty is mistaking the minimal notice or commendation we get in the world’s affairs for a measure of our real worth to humanity. In this regard we need to recall those feral children raised without human contact, and as a result resembling wolf more than
human at every level of being. From this we should realize that it takes billions of small, continuous nurturant acts to transform the raw biological material of which we are constructed into fully functioning human beings. Dying persons should come to understand, possibly via an assisted pre-death assessment and celebration of their lives, that they have indeed done their bit—played their own unique and indispensible role—in the maintenance and advancement of humanity.

The dying person envisaged in the above paragraphs is terminally ill, probably in the last few months of life. But on the understanding that all persons born are en route to death, it follows that all mature persons will make having a good death a matter to be included in their life’s action plans. They will make a periodic assessment of the nurturance balance or credit in their lives—plausibly using ODND as their domain of inquiry—and consciously plan to increase it in the time left to them. They will believe that every unit added to their ‘bank’ will add to their final sense of self-worth. Thus, acceptance of the fact of death could become a powerful stimulant to increasing the amount of nurturance and its resulting human advancement.
In carrying out the constant reminder that CSHDE concepts are cumulative, we recall that the core ideas of each chapter need to be committed to memory. For the present chapter these would be:

1. It seems reasonable to believe that individuals’ steady progress toward optimal development will require that they progressively take control of their own continuing development.

2. If we think of empowering as fostering the ability to stimulate growth in processes/systems, we are prompted to extend the common understandings of empowering as giving permission, providing the needed resources and inculcating skill. The critical extensions are teaching task schemas, using schemas to upgrade existing procedures (DITB), providing strategies for constructing schemas, for integrating schemas into more comprehensive ones, and radically restructuring task schemas.

3. These schema enhancements can be made for the physical, intellectual, valuing, principle using and self-transcending processes underlying levels of being. In these cases, the essential strategy for the individual is the teaching/learning process (MEP) described in Chapter 6—which he must take control of himself, drawing in other teaching resources as required.

4. Plausible strategies exist for constructing schemas and for using a schema for improving an existing procedure (DITB). DITB carries out the same inquiries as Topic Elaboration, a process for the systematic development of topics.
5. There is as yet no CSHDE strategy for integrating the generic schemas that govern our approach to the separate focuses of our life, or for radically restructuring task schemas, although we should be optimistic that they will ultimately be constructed.

6. The mastery of the strategies for the strongest forms of empowerment will not happen suddenly in adulthood, but can and must be built up through the acquisition over the lifespan of the skills on which they rest, each acquisition of which is in its own right a subordinate but prerequisite form of empowerment.

7. The importance of these ideas is that empowerment is very weakly supported at this time in our culture, putting tragic limitations on the realization of human potential.
As we pointed out in the introduction to this book, the dominant contemporary metaphor for the process of social advancement is “working together to promote optimal human development”. And “working together on behalf of...” (some named group or cause) is a common rallying cry for new agency initiatives that hope to enlist the support of others. Indeed, the working together theme has escalated dramatically over the past two decades.

Working together on life tasks can conserve resources and make best use of the unique strengths of all group members. Also, reflection on life experience tells us that society will never help an individual develop to the fullest possible degree unless the efforts of the successive agents that interact with him integrate and cumulate their efforts over his growing years. But although the need for working together in these ways is doubly verified,
the evidence presented later in this chapter will suggest that it has been successful to date only in the least complex cases. Thus the need exists—for those who would promote optimal human development—to rethink this subject in a fundamental way.

So we begin this chapter by defining the idea of working together and trying to clarify the terminology that it has spawned. We next discuss how the motivation to work together is prompted by one of the fundamental principles of human advancement. We then develop from common experience a basic and intuitively understood schema for working together. Next we examine a series of attempts to work together, some successful and some not, and from these try to draw some general conclusions about the prerequisites for success. Finally we relate these prerequisites to working together projects still to be undertaken if humanity is to move forward at a pace comparable to its potential for advancement.

Working Together: Definition, Propelling Intuition And Resulting Terminology

In this book a group (or groups) of individuals will be said to be working together when they take compatible actions, within a common time framework and plan, to achieve a common end. This definition subsumes a range of examples ranging from two people sitting together to create a pleasant hour of interaction to two nations negotiating a peaceful ending to their hostile dispute.

Where Does The “Working Together” Theme Come From?

Working together on many life tasks just seems a matter of common sense. However, we advance the hypothesis that more passionate or uninhibited expressions of this theme, such as
“together we can do anything”, find supplementary energy within the human psyche. In Chapter 1 we postulated, as a fundamental principle of advancement, that individual systems continue to grow as they come together to create a larger system that can achieve more than the sum of their individual, separate efforts. We called this sequence of actions the Pattern of Ideal Development in Advancing Systems (PIDAS). This pattern is observable at every level of life, from cells to couples, to agencies within communities, to nations.

Lodged within the human subconscious, the PIDAS prompting is an intuition whose truth is verified by observation of effective teamwork in sports, marriages and countless other human activities. So it is to be expected that the PIDAS prompting will continually surface in social betterment thinking, including in the work of a community’s designated social agencies. This prompting will be especially vigorous when there is a sense that something needs to be achieved beyond what the potential partners can do on their own.

The Terminology Of Working Together

PIDAS promptings are expressed in various ways in real life situations. When referring to the process of working together, we speak of “cooperating” and “collaborating”—terms that are seldom defined but whose usual sequencing implies some kind of continuum of increasing intensity of engagement. Sometimes the sequence is extended in the opposite direction (i.e., decreasing intensity of engagement) to “communicating” or simply “being aware of”.

The product of working together, envisaged as a process or set of actions, can be thought of as a “service”, and “providing services” is certainly the term used to describe what community agencies actually do. The sequence of “coordinated”, “integrated” and (occasionally) “fused” describes increased degrees of
combination of the services of the agencies that are working together.

Without definition or inter-relating, the burgeoning language of working together was becoming an impediment to progress by the new millennium and was in need of sorting out. The need intensified in Ontario with the 2005 establishment of the Ministry of Children and Youth Services, whose stated mission was “to create a continuum of integrated services for children and youth from birth to age 18”. To facilitate the construction of this continuum, MCYS provided a conceptual tool, called the Integration Index, which defined five levels of increasingly intense working together. These were designated Awareness, Communication, Cooperation, Collaboration, and Fusion. If we imagine this progression as resulting from PIDAS promptings, the progression can then be thought of as stages through which the “comings together” progress.

The authors’ embellishment of the wording of the MCYS Index is shown in Fig. 8.1, which shows the sequence of actions employed to bring services together to constitute a more effective process. Basically, we wanted it to apply not only to the interaction of agencies, but as well to the teams that form around common clients—in a process called “case management”—in which individuals from different agencies work with a common client. To achieve this broader end, we worded our scale in terms of the processes that can be employed in both contexts.

These clarifications of the working together language are employed in the remainder of this chapter. The associated service integration continuum not only allows us to measure progress in working together over time, but as well gives us a framework for determining which CSHDE concepts and strategies are needed to move to advance to successively higher levels.
Becoming Aware
Potential partners are aware that they are working in the same service area as other community agencies but make available to each other only summary information on their goals and supporting programs.

Communicating
Potential partners communicate to each other sufficient knowledge of their service processes, goals and action plans to allow a determination whether a useful working together effort seems feasible.

Cooperating
A potential partner will, on request, help another partner by facilitating that partner’s engagement of one or more components of its service program.

Coordinating
Potential partners change or adapt the service processes they perform to better fit within a shared action framework.

Collaborating
Potential partners jointly develop or choose the superordinate service framework within which they will work, agree on the schema to be employed in carrying out the service processes identified by it, and agree on individual responsibilities for performing these tasks.

Integrating (Fusion)
The potential partners have shared growth expectations and strategies for helping their common clients—who cannot therefore distinguish any difference in the service goals and supporting actions of the separate partners.

FIGURE 8.1 The Service Integration Scale.
A Basic Working Together Schema

It seems sensible that any group of agencies that hope to work together to foster human development and empowerment (or indeed, for any other purpose) within a designated community will get better results if they work from a common action framework.

A basic working together schema is easily retrieved from life experience in which a group of people work successfully together for some common purpose. A good example is found in the concept of “being good neighbours” as it was (and still is, to some extent) practiced in rural Ontario and in some urban neighbourhoods. This was brought most dramatically into play when some tragedy befell a family, such as its house burning down. Immediately neighbours flocked to the scene, and first ensured that everyone had been safely removed from the burning building. This accomplished, neighbours’ minds moved intuitively across the ODND as some offered the distressed family shelter and others soon offered food and drink. Still others attended to minor injuries, and transported victims with serious injuries to the care of health professionals.

At first, the actions of individual neighbours would be largely uncoordinated, resulting in much duplication of effort. This is because initially, contributing neighbours were focused almost exclusively on what they themselves were doing. But the redundancy of effort would ultimately be noticed and an effort made to eliminate it. This would happen most clearly when a family advocate, perhaps a close neighbour or friend, made up (at least mentally) a “what needs doing, by whom” chart like the one shown in Fig. 8.2—what we will call the Basic Working Together Schema (BWTS). The critical element in constructing this chart was to ensure that the set of proposed nurturant actions was sufficient to support the basic needs of the afflicted family over the course of their lived day, week or month. What
this entailed would be known intuitively to the advocate because of her experience with supporting the ODNDs of her own family over the lived day.

To relate this discussion to the Service Integration Scale, when the partnering neighbours agreed to the advocate’s request that they take on a particular maintenance task, their working together would have reached the Cooperation level—in this case cooperating with the advocate by performing a component of her larger plan for nurturing the family. And this would further rise to the Coordination level when their approach to the task was modified to best fit the overall nurturing package. For example, a person intending to bring food would adjust the kind

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**FIGURE 8.2 Basic Working Together Schema.**
and amount she brings as she learns what other food providers are bringing.

The understanding of the ODND by the partnering neighbours would support further advances in the Scale. To start, as the neighbours put nurturance resources into any column, most would try to engage the client at the deepest level of being that the situation allows. For example, neighbours would act in a way that respects the family’s particular cultural values and does not violate any known principle or religious belief of the family—such as their avoidance of particular kinds of food or certain kinds of medical treatment.

We would continue to see a chart like Fig. 8.2 emerging from initial chaos if we examined examples at even greater remove from the family setting. In Chapter 3 we described how the world responds to natural disasters such as earthquakes, floods or tornadoes. Initially, the impulse to help brings a flurry of assisting actions that, again, move intuitively across the ODND, and produce much wasteful overlap and excess. Then, in some cases, some agency, motivated by the desire to use resources effectively, steps in to try to coordinate efforts.

Although the basic schema for working together may seem elementary and commonsensical, it is obvious that many attempts at working together are hampered by its lack. We think here for example of the many uncoordinated efforts to help the poor that are prompted by the Christmas spirit in most communities. The result is overlapping effort, almost invariably focused on giving short term pleasure to both the givers and recipients of food and gifts but leaving more fundamental nurturing needs untouched. To illustrate how far such overlap and intrinsic foolishness can go, we were told by a reliable source that a needy family in a nearby community received a dozen gift turkeys one recent Christmas. Not so amusing are cases where highly paid professionals from a number of different agencies create overlapping plans for engaging the
same client with little knowledge of each other’s efforts, let alone any attempt to coordinate them within a shared schema. And outright frightening are cases where professionals conducting or advising actions in regard to the same patient have no detailed knowledge of one another’s actions, or how they interact with their own.

All said, we can have confidence that Fig. 8.2 captures the essential logic of a plan for working together to achieve some end that is intuitive in human beings, and perhaps even in some other species. It therefore provides a useful framework for analysing what was done in real life examples.

**Analysis Of Past Attempts To Work Together**

In this chapter segment we will examine both successful and unsuccessful attempts to work together for some aspect of human advancement. In each case we try to relate what happened to the ODND and/or the BWTS—and frequently suggest how things might have been done better by using relevant CSHDE concepts and strategies. Our examples are arranged in order of complexity for both interpersonal and interagency workings-together.

**Interpersonal Examples**

*The discussion, debate, dialogue sequence*

This sequence describes three distinctly different types of conversations people have about topics of common interest. We can better understand their essential difference by mapping them on the BWTS. In all three cases the participants will be known and so they are readily recorded as row headings.

In ‘polite discussion’, there is an implicit agreement that participants are to share the opportunity to tell their
thoughts about the topic under discussion. There need be no
connection between what is said by subsequent speakers, and
so summarizing what was said is pretty well limited to citing
things put forward by a majority.

In formal ‘debate’, taking turns is again required, but this
time there is a focusing issue, e.g., whether or not a proposed
course of action should proceed. So successive speakers take
a ‘side’ (yes or no) and advance evidence for it—basically,
attempting to convince the audience that it scores better than
the alternative on named criteria. Although debate is a common
method of trying to win supporters, informal debate almost
always descends into hostility and ad hominem slurs.

‘Dialogue’ is a much lauded but seldom defined or
practiced mode of communication. The participants again take
turns presenting, and the CSHDE generated rules for the BWTS
actions are (i) that each new speaker has to say what part of the
previous speaker’s idea he can accept; and (ii) what he would
change or add. Also a summary must be made periodically
of what has been agreed up to that point—so that the body of
accepted ideas cumulates. Over the history of CSHDE, dialogue
evolved as the best way for a group to agree on the meaning of a
central project concept, or the components of a process schema.

In summary, the discussion/debate/dialogue sequence
increasingly requires the use of strategies to govern the
associated BWTS actions, which no doubt explains the rarely
successful use of dialogue in human affairs—and this despite its
ability to create products that are jointly owned and synthesize
the best insights of the participants.

The family get-together
The idea that families should “get together” on holidays and other
special occasions is so firmly embedded in our adult psyche
that its execution is seldom put under an analytic microscope
to assess the actual impact on the participants. We judge the encounter a success if participants leave saying “I had a good time” or “we should do this more often”—even though we know these are often polite remarks rather than honest expressions of experienced positive affect or personal growth.

CSHDE concepts will start to shake this passive acceptance by reminding us that the family get together should be an act of intelligent self-direction—in which case we should know what purpose or goal it is to serve. Then, when we are told that the purpose is “to have a good time” the CSHDE conception of a fully functioning human being informs us that there is a hierarchy of levels of being at which we can, potentially, generate positive affect simply by their activation.

Get-togethers that are centred on the short-term fun derived from food, drink and playful sports contests (primarily engagements of the physical level of being) can certainly be valued for the discernible impact on development that results from positive affect (i.e., being happy). But an ODND perspective would prompt us to ask whether we might sometimes aim for activities that engage deeper levels of a human being and therefore have more enduring and satisfying impacts. Most families of our acquaintance seem in time to sense the need for this. Personal narrative updates, freely offered and attentively listened to, at least constitute a minor intellectual stimulant for participants. And the sophisticated card, board and word games frequently played in the holidays intensify this engagement. Values can be invoked when participants bring their own music to share, or attempt to make music together, or when an annual family custom—such as a hike or informal sports event—is enacted.

Some families make an effort to engage their ethical and spiritual levels during family get-togethers, at least minimally, by going to church together. Beyond that, our local community was pleased to hear that a certain family always invites a couple
of the community’s homeless members to share their Christmas feast. And it was truly said to be “heart warming” to learn that another family has stopped gifting one another and instead spends Christmas morning deciding how the considerable resulting unspent funds can be best used to help people in need.

In summary of this example, it seems plausible that when the strategy for family get-togethers, a cooperative effort to have a good time, becomes to activate as much of the ODND as possible, and the higher levels of being in particular, the result will be deeper and more enduring satisfactions for the overall group.

The Inquiry Program

*Living and Learning*, the report of a Royal Commission into Ontario’s elementary educational system in the 1960s, declared the student’s right to learn by his own inquiries whenever possible, as opposed to simply absorbing information from his teacher.

Recognizing that his teachers didn’t know how to promote inquiry learning, the director of a small city school system came to a newly established field office of The Ontario Institute For Studies In Education for help. One of the academics at this centre had a special interest in problem solving—then taken as the equivalent of inquiry—and set about designing a program for senior elementary schools.

The components of the process of working together were a modification of the conventional academic process—basic research, applied research, development, pilot testing and systematic implementation—in which the problem to be overcome originated in educational practice and was then brought to academia. The central, theoretical idea (a product of basic research) was a generalization of Ausubel’s concept of an advance organizer, in the present case an advance organizer for inquiry models. In the development phase the defined
steps in four different types of inquiry—logical/quantitative, causal, correlational and decision-making—were linked to the inquiry components represented in Fig. 8.3, and hence, it was hypothesized, would be learned more easily, retained longer, and applied more facilely. The first drafts of the program were tried out on the academic’s children under the guise of “summer holiday stimulation” then, on refinement, were subjected to the scrutiny of a colleague at the field centre, and further adjustments made, completing the development phase. The first classroom trial (pilot test), arranged with schools by the director, involved himself and the two academics as teachers.

We regard this working together on an inquiry program by a senior school administrator, two academics and three school

age learners as successful because of the very positive results of its initial trial. For every 15 hours of instruction there was an apparent gain in problem solving thinking equivalent to what normally occurred over three years of regular schooling. This was also dramatic repudiation of the belief of many teachers and education writers that OISE was an ivory tower.

However the project failed at the systematic implementation stage, largely because the Ministry of Education did not require school boards to incorporate research-based innovation with positive impact into their regular school practice. The project leaders had thought that their evidence that performance in what was touted as the emerging central school objective could be enhanced almost beyond belief would bring the regional directors of education flocking to their doors to find out how this could be done. What came, rather, was criticism that the field-based academics were not trying to find out how to improve performance in such traditional school skills as computation, spelling and handwriting (themselves a diminution of the three Rs more broadly). The important lesson for working together efforts was that it had been naïve of the project leaders to expect directors of education in other school boards, irrespective of the evidence, to cooperate in a project that did not reflect their beliefs about the educational outcomes most in need of improvement.

The Interdisciplinary Skills List
By the 1970s the Ministry of Education’s expectations for enhanced problem solving performance had spread into the Ontario secondary schools. So when OISE started to teach curriculum development courses in Northeastern Ontario this became the top priority area for project work, and involved the same academic staff member who had headed the inquiry project in the Niagara region.
The central idea was again to try to construct a skill organizer, this time for the major secondary school disciplines. But this time we tried to profit from our failure in the implementation phase of the inquiry training program by not laying on a theory based problem-solving model of our construction. Rather, this organizer was constructed by an apparent intuition about what two decades later became the strategy for constructing schemas for engaging life tasks described in Chapter 7. That is, the heads of the major academic departments in a regional high school were asked to identify an example of the most demanding intellectual task they required their students to perform and the steps they expected the student to take in performing it—thus revealing what they considered the most important intellectual skills used in their subject discipline. These lists were then aligned and synthesized in the laborious manner described in the schema building strategy, yielding what we called the Interdisciplinary Skills List (IDSL) shown in Fig. 8.4.

Because the participants were mostly students of the involved academics, and thus were under pressure to collaborate, the exercise was repeated with a group of volunteer participants

| 1. Establishing a focus for the inquiry |
| 2. Establishing a framework |
| 3. Locating sources of information |
| 4. Obtaining information at the source |
| 5. Decoding information at the source |
| 6. Assessing the adequacy of information |
| 7. Recording information in the framework |
| 8. Summarizing information in the framework |
| 9. Observing relationships in summary data |
| 10. Interpreting the observed relationships |
| 11. Extrapolating the interpretation beyond the problem framework |
| 12. Communicating the inquiry and its result |

**FIGURE 8.4 Interdisciplinary Skills List.**
made up of Ministry and board consultants, teaching specialists and senior board curriculum officers and produced essentially the same result.

One measure of the success of this integration of “services” (individual models) was that the IDSL subsequently appeared in two major Ministry curriculum guidelines—probably setting a precedent for the influence of regional efforts on central government policy.

**Case management**

Individuals with special needs often become clients of more than one of the community’s social agencies, and are assigned to a staff member in each servicing agency. At some point the assigned staff member from one agency, seized by the working together impulse, may take the lead and attempt to form a case management group to coordinate or integrate the individual inputs.

Our illustrative example, a real-life case, involved a volunteer from an agency that provides adult mentors for children and youth. This particular volunteer agreed to mentor a four-year-old child who was identified as failing to meet developmental benchmarks, especially in language and numeracy. As the volunteer got to know her mentee, she discovered that individuals from other agencies were also involved in growth-stimulating efforts with him, including the advancement of his numeracy and literacy skills. A caseworker from a family support agency developed a yearly plan for his development. A teaching assistant worked with the child in a kindergarten setting reinforcing the language and number skill teaching of the professional teacher. The child’s parents took the child, a member of a distinctive cultural group, to some of its cultural enrichment sessions, but otherwise did little to deliberately stimulate identified aspects of his literacy or numeracy development. The volunteer aside, these service providers had very little knowledge of each other’s
growth-stimulating activities and thus had no way of knowing the degree to which they supported each other, or how mutual support and cumulative impact could have been increased. It is not even certain that all had reached the Awareness level in the Service Integration Scale.

The volunteer, a CSHDE exponent, believed that the child’s best interests would be served if the teaching assistant, social worker and herself worked as a team with the parents, and especially the stay-at-home mother, to stimulate the child’s lagging literacy and numeracy skills. To clarify matters she made a diagram (Fig. 8.5) that showed both the existing and needed inputs from the potential partners.

The top left-hand part of the diagram portrays the original arrangement as the direct engagement of the child by each of the three individuals providing input, with no contact with each other or the parents. In the proposed arrangement (bottom left), these three development supporters synthesize their efforts (requiring collaboration), then provide input to the mother and father to help them become the main growth supporters for the child. When agreement on this plan was reached, each named adult would acquire a row in the Basic Working Together Schema shown in the right-hand side of the diagram.

The cell entries would show the intended advances or growth steps in the child’s literacy and numeracy skills for each quarter of the coming year, and the actions each team player would have to take to support that growth. Identifying these levels and actions in manageable detail would require at least minimal concepts of growth and teaching.

As is so often the case, regrettably, the volunteer could not gain the necessary support for constructing such a plan, presumably for the reasons commonly offered (which we discuss later) for failure to work together. Given the teaching skills required, fear of failure was certainly a plausible cause. In any case, each contributor continued to do her own thing.
FIGURE 8.5 A socio-ecological system for the management of a particular case.
<table>
<thead>
<tr>
<th>I’s Dimensions of Development</th>
<th>Growth Steps</th>
</tr>
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<tbody>
<tr>
<td>literacy</td>
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<td>M/F</td>
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</table>

**Development Supporting Actions**

- Individual child
- Mother
- Father
- Volunteer
- Teaching assistant
- Social worker

R
- restructuring of mental models
- modelling
- reinforcement
- synthesis of efforts
without any assurance that her impact was anything like what it might have been as part of an integrated effort or, indeed having any impact at all. The sensible conclusion is that the child was cheated out of his investment of lived time. A general observation is that this tends to be the rule in case conferences.

We have in part used this failed case management to give an example of what is called by many a “socio-ecological model”—a diagram like Fig. 8.5 that shows the interaction among the people who are presently interacting with a common client and who therefore have an obligation to think about working together. Such a diagram serves as a useful, overriding perspective for the promotion of the optimal development of any community members. It counteracts the natural tendency for any community agency that impacts on human development to look outward at the community from its own self-centred perspective, hence to overemphasize the impact its development-supporting actions have on those it is trying to help, while underestimating and failing to fully utilize the impact of other individuals and agencies.

For example, because elementary school teachers provide formal reading instruction, they believe that they are primarily responsible for growth in reading competence—and thus fail to work with parents of preschool children—even though we believe that research would show that the quality of early language stimulation provided by parents is an important contributor to later reading ability. Similarly, the secondary school's attempts to advance complex thinking skills such as decision-making has largely failed because parents and other community groups are not recruited to support the use of such skills at a high level—so in their habitual or day-to-day behaviour students soon regress to the lower levels in use outside the school walls.

Our observations about the self-centredness of agencies (i.e., community organizations) apply as well to ourselves as individuals. When we form the intention to help someone,
perhaps a friend, an elderly relative, or a grandchild, we too often act as though we are the only person providing help, and proceed to implement our own plan without consideration of how this supports or hinders the plans of others. Conflicts between mothers and mothers-in-law about how to raise (especially, not “spoil”) young children have become the stuff of sitcoms.

In summary, any agency or individual intending to foster some aspect of human development needs periodically to determine which agencies are already trying to impact directly on a common client and to what end, and to reactivate a map of key development supporting players, at least in the mind but preferably on paper. Surprisingly this is rarely done, even for at-risk individuals who may be clients of several agencies.

**Parenting young children**

Traditionally the nurturing of young children has been the responsibility of parents, a role popularly described as “raising” them. The stay-at-home mother of days gone by pretty well carried the full load for protecting the preschool child from hurt, meeting his basic needs, and nursing his recovery from illness and injury. The father’s intervention with the young child came in teaching skills, particularly motor skills involved in play and recreational activities—and in these the father had a protective role as well.

Now that the norm is for both parents to have jobs outside the home, it would seem that these roles must be substantially readjusted and that fathers must play a much larger, although as yet undefined, role in the development of their preschool children. This readjustment of parenting roles must also take account of the fact that over the past century, the importance of development-focused stimulation in the early years to the individual’s ultimate development has been increasingly
recognized—so expectations for parental interaction with their children during that period have risen substantially.

Although it is a commonplace assertion that “parents are the child's first and foremost educators” this potential act of working together to foster human development is rarely subjected to sufficient analysis to allow a determination of present effectiveness and possible improvement. CSHDE concepts help us to think more deeply about the parents working together to promote the fullest possible development of their young children. The BWTS and the ODND in particular allow us to assess the scope and likely effectiveness of current parenting efforts and to understand where improvements could be made.

Plausibly the most important example of needed integration of development support involves the mother in her role as primary caregiver during the first few years of the child’s life. So we will try to think through how this mother, who we will assume has a male spouse and some other children, would go about constructing in her mind the BWTS for her newborn.

A difficulty arises in trying to identify the partners she can rely on, and to what extent, to assist her with this nurturing of this family addition—that is to determine what row entities the BWTS will have. Presumably these are matters of negotiation between herself, her spouse and other children and such other near relatives (grandparents in particular) who are motivated to help. And for many parents, daycare providers must be considered to be potentially significant forces in their child’s development, in some cases beginning in the first few months of the child’s life. It seems better to have such partnering negotiations at the outset, than to wait until an unmanageable compound of nurturing all family members, homemaking and contributing to family income through gainful employment brings her to a state of exhaustion, resentment and (as we have proposed in Chapter 6) the inability to engage in the most potent forms of interactive growth stimulation of her children. From
the perspective of the Service Integration Scale, then, we can see that just realizing the Awareness stage (determining who will be a reliable partner) can involve uncertainties and difficulties, in some cases never satisfactorily resolved so the mother has for the most past to go it alone.

The primary caregiver—the individual most responsible for thinking through the needed BWTS—will today encounter additional challenges in trying to determine the tasks that are to make up the column headings. We say “today” remembering the dominance of the “internal time clock” theory (Chapter 5), which argued that the child’s development is primarily physical until school age, so what he needs from parents before then is physical care, lovingly delivered. Stimulating intellectual development, for example, was a secondary consideration at best, limited to reading bedtime stories to children and teaching them to rote count to ten or thereabouts.

What are today’s expectations about nurturing tasks? We can break this into two parts: the dimensions to be addressed and the expectations within each dimension. As for dimensions, we reported in an earlier chapter that our Best Start deliberations suggested that the five dimensions in ODND reflected the expectations of today’s growth-conscious parents. Moreover, the intellectual growth category has been vastly expanded beyond readiness for reading and rote counting to include language use generally, rational counting, causal reasoning, quantitative problem solving, planning, decision-making, actual reading and other skills the child requires to be an intelligently self-directed person.

To incorporate these as tasks in the BWTS its designer would give each intended dimension for development a column for each of the varieties to be developed. With this completed and negotiated with the committed partners, we might reasonably say that the Communication level has been reached in the Service Integration Scale. Achieving this stage will require that
the partners think beyond traditional expectations of getting children ready for school, something achieved by only a small minority in our experience in working with parent support groups.

Completing the BWTS, and thereby advancing to the Cooperation level, requires reaching agreement on which of the tasks so defined each contributor is to address.

Coordination is reached when the partners addressing the same cell agree on what part of the instructional cycle (Chapter 6) each will perform. To recall, motivating the learner, stimulating the growth transition and supporting the new level of performance are the main components of this cycle.

Integration would occur if the various intended inputs were organized within the lived days of the child and the nurturing partners. When done systematically this requires a process of curriculum design beyond the capabilities of those without training and experience.

The Fusion level, largely an idealistic conception, would mean that the mother and father would act as a unified entity in the engagement of the child, so that they have common expectations and use the same schema—in effect, being able to act as complete surrogates for one another. From the child’s point of view, their actions and roles would be indistinguishable. This would have the desirable results that the child cannot set one parent’s expectations against the other’s and the impact of their individual services would cumulate. While this is a desirable aspect of Fusion, we would not advocate the loss of the parents’ individual identities in this joint action, because that would rule out each making what they perceive to be a unique and indispensable contribution to the child’s development—something required for nurturing their own positive self-esteem. Moreover, we believe that males and females have somewhat different interests, which over the long run generate
complementary strengths, and that both are required for the optimal development of children.

We might think of the BWTS completed to the Coordination point as the primary caregiver’s plan for nurturing the child. There remains, of course, the task of implementing this plan—which includes each partner possessing or acquiring the skill needed to stimulate the kinds of growth that are expected. For most parents, old or new, substantial amounts of learning would be required to carry out the needed instructional components effectively, clearly a formidable obstacle to achieving genuine coordination. As a positive incentive, however, there would be opportunities here for fathers and other male partners to carry out the critical ‘initiating new learning’ task for many of the logical/quantitative/spatial components of the intellectual dimension that seldom appear in the language-dominated early childhood programs constructed by females.

As another positive note, over the past couple of decades, parent-friendly manuals have been prepared for stimulating most of the new expected sub-dimensions of intellectual development mentioned above. But using them to enhance parenting skill will predictably require some coaching.

After this analysis, what can we say about the likely effectiveness of the parenting of young children? We don’t really have any systematic data on how far parents get in the construction and carrying out of a BWTS for a newly arrived child. But by envisioning the described steps in completing the chart as movements along the Service Integration Scale, as we have done, we must surely form a negative judgment about the level at which the parenting of young children is currently practiced. This is a great impediment to the goal of realizing human potential.

And this must come as no surprise; as the potential and demands of competent parenting seeped into public
consciousness, it was realized that parents were being asked to undertake one of the most important and demanding jobs with virtually no training. Parents admitted to not knowing how to stimulate any kind of development beyond the physical, so their child development agenda was largely determined by prevailing social practice and what they had themselves experienced as children. So around the beginning of the new millennium, community agencies that believed their influence on children was most effectively delivered through their parents started to offer supporting parent programs. Overwhelmingly these were a series of talks or workshops on such aspects of childcare as safety, diet, sleeping and emotional regulation. Judged primarily by the enthusiasm and good reports of participants, no body of credible positive impact data ever emerged, but given the demands of using the essential critical tools for sophisticated parenting, we can expect little from the typical time investment in such parenting courses.

Empowering human beings to parent for optimal development will be a long-term social commitment, part of a larger effort of giving children the best possible start in life. We comment further on this larger effort at the end of this chapter.

**Attempted Interagency Collaborations**

The following are episodes of working together that impacted or tried to impact the policy or action plan of the constituent “agencies”. An agency is defined for our purposes as a group designated by the community to provide an identified set of services.

**Integrating school subjects**

A hoped-for working together project in which the authors were extensively involved occurred in the early ’90s in Ontario when the Ministry of Education tried to get secondary school
teachers to “integrate” their curriculum. The intent was to bring the content and skills of the various disciplines together in the learner’s mind, and to connect these integrated mental structures to activities that are important to learners in their lives outside school. In this case the agencies were the secondary schools’ academic departments, each held responsible to deliver a designated body of skill and knowledge from a recognized field of human scholarship.

If this had worked, it could have been conceived as the academic departments working together to promote the fullest possible intellectual development of their shared learners. But it didn’t work and after a flurry of conference speeches, academic papers and how-to books, was abruptly abandoned, seldom to be referred to since, and more tragically not even reflected upon as history for useful lessons.

The reason for the failure is readily determined by returning to the Basic Working Together Schema. While who the big players among secondary school disciplines (the agencies) are has not been in doubt in the last hundred years, the description of the actions to be jointly undertaken never got beyond “integrate knowledge and skill”—which is far too general to direct any concrete action. Our account of the Interdisciplinary Skills List indicates that integrating important aspects of the schools’ academic programs is possible when the desire to do it is matched by possession of an effective strategy.

As for motivation, we need to note that for secondary school teachers with substantial academic training, their academic “discipline” is the self-transcending referencing point in their professional lives—that is, the thing that they perceive as larger and more enduring and powerful than their own limited action as a professional. Advanced training in a university discipline is the basis for a “specialist” designation and the prestige and monetary rewards it delivers. Commendation from a university based academic is much more important than holding office
in the professional teachers’ association. Teachers in each of several secondary school departments think their subject the most important and its practitioners the most intelligent. This is not the mental set needed for interdepartmental collaboration.

We note in passing that this is hardly the first example of failure to work together in the formal education system. We also find it at the interface of each of its major divisions: between parents (preschool) and elementary school teachers; elementary school and secondary school teachers; and secondary school and university teachers. In each case there is actually a kind of dehumanizing of the potential partner that justifies making no effort to work together. For example, secondary school teachers, better trained in their subject disciplines, have in our experience thought elementary teachers to be “discipline ignoramuses” while the slogan of elementary teachers has been that their secondary counterparts “teach subjects, not children”.

Given the timeless PIDAS prompting we can expect periodic new appeals for various kinds of integration in education, and we can envisage possibilities for each level of being. For example, the academic disciplines could be an important vehicle for fostering a common set of principles, such as respecting knowledge, trying to use it in all life pursuits to which it is relevant and helping other students do the same. And despite past failures we should recognize that we now have the conceptual tools to bring these more limited integrations to productive completion.

The Comprehensive School Health Project
During the mid 1960s the World Health Organization (WHO) promoted the idea that secondary schools should establish what it called a Comprehensive School Health Project. The rationale was that it was only during the secondary years that all young people in the community in a designated age span were brought together, under the school’s direction, in a sufficiently
advanced state of intellectual development to rationally plan and implement a program of personal physical fitness that covered all the health bases: nutrition; exercise; alcohol and drugs; smart sex decisions; a smoke-free life.

The concept was rapturously received by one group of health practitioners and educators convened by a district school board. The group comprised two regional medical officers of health; the director of the school board; the heads of three other regional agencies with health responsibilities; a range of health promoters’ officers; and one of the authors of this book. A rationale for the program was written and accepted in principle by the sponsoring board.5

But the project stalled when the group failed to identify and allot responsibilities for the curriculum development tasks that make up the BWTS actions. The curriculum development technology was available and the load for each partner would have been manageable, but without a BWTS analysis, developing this innovative curriculum seemed an impossible task to most of the initial enthusiasts. It needs noting that this cycle of: appearance of an innovative idea; enthusiastic initial response; and rapid disengagement when sustained development is required (or more generally when initial data from field trials does not support initial promise) has been the pattern in public education, with at least 60 documentable examples in Ontario over the 40 years in which CSHDE has been developed.

The merit of a comprehensive school-based health program remains unquestioned and we can anticipate that a proposal for its development will be heard again. Two CSHDE products of the first attempt will still be valid. The first was the definition of basic health terms, for example, distinguishing “health” from “fitness”. The second was an understanding that the health curriculum is never likely to get much time in an already overcrowded school curriculum. So the best chance of success lies in empowering learners to take control of their own
health promotion by teaching them how to continually enlarge their schemas for key health-generating processes. The schemas to be continually enlarged are those for the three left-hand columns of the ODND, described in Chapter 4. The strategy for upgrading them is DITB, described in Chapter 7.

**Best Start: A major government effort to promote working together by community agencies concerned with young children**

In the early 2000s, efforts to work together at the community level were expressed primarily in the language of “services”. As mentioned earlier, it became a government theme in Ontario with the 2005 establishment of the Ministry of Children and Youth Services, whose stated mission was “to create a continuum of integrated services for children and youth from birth to age 18”. The first major effort to move from mission to actual, integrated services for the early years came with the initiation of Best Start in 2005. This was a proposed 10-year program to integrate community services for children from birth to age six and their parents. Of special interest to the authors, government literature declared that the intended goal for this group was their optimal or fullest possible development. The Best Start initiative can thus be thought of as probably the most comprehensive initiative to stimulate the development of young children in Ontario’s history.

The Ministry’s Best Start literature provided information to begin the construction of a BWTS chart. In a first step, a lead community agency was to be named whose initial task was to identify other potential community partners in fostering the goals of Best Start. Potential partners identified by the lead agency were invited to send a representative to a community-wide committee. In a very broadly defined subsequent step, partners were to share their existing programs at the common community table, and their progressive integration was to take
place over a decade-long period. No strategy or further detail was provided as to how this integration was to proceed.

In the following years the Best Start project in the Nipissing region had many committee meetings and produced numerous large documents. Certainly the Awareness level in the government’s Integration Index was reached, aided in part by a compilation of synopses of existing programs. But as far as we can observe, there was little substantive modification in the programs of community partners, so neither Cooperation nor Collaboration could honestly be claimed. And it is arguable whether the detail of information exchanged justifies even a claim of Communication. As early as 2010 there seemed to be much skepticism as to whether the levels beyond Awareness would ever be reached.

The Best Start goal could not be achieved because the intended partners did not construct a path (feasible set of sufficient actions) from the vision of maximizing children’s development to its actual achievement. Because creating this path, or “conceptual bridge” as we called it, was the task that led to the development of CSHDE, its authors would argue (and hoped to have demonstrated through the analysis of examples) that the use of its components in sequence could have moved the Best Start project step by step through the Integration Index. More importantly, the result would have been a giant step forward in achieving children’s real potential.

An interagency sexual health project
The authors were involved in a development project that had a consultant versed in CSHDE strategies available full time. It was initiated in a District Health Unit, an agency whose programs follow young people through the process of family building. This sequence of programs begins when young people become sexually active and are offered a course on sexual health. It continues with prenatal instruction for mothers, which is
followed by in-home parenting support, where required, after the child is born. The sequence terminates with a number of voluntary parenting programs for parents of children in different age groups. It may be fairly said that integration of services in these courses had, at the time of our intervention only reached the Awareness level, in that their teachers had only a very general idea of the content and approach of other courses.

To leap forward to the Cooperation level, an agreement was reached among course teachers to adopt the Model for a Fully Functioning Human Being, the derivative ODND, and the notion of socio-ecological maps as central conceptual tools for all courses. These teachers would redevelop course content so that it better related to these tools, while at the same time be consonant with relevant research. Further agreements had to do with how the parents’ use of the ODND would grow from course to course and the general nature of the instructional strategies to be used with parents.

In all, the redevelopment of this sequence of courses would allow each course to build on the content of its predecessors. Even though the service integration level was still pegged at Cooperation two years after the project’s initiation, the enthusiasm of the participants suggested that the move to Collaboration could take place some years down the road. Then, with successful experience behind them and an organizational climate that promoted and allowed time for program development, the teachers of the separate courses could collectively co-redesign the whole sequence.

The project as so far described was intra-agency. The interagency component arose when the model for a human being, and the idea of making permission to advance to increasing degrees of sexual intimacy dependent on demonstrating maturity at successively higher levels of being, were enthusiastically received by educators responsible for the
schools’ sexual health program and by a community agency focusing on HIV/AIDS education.

Unfortunately a change in senior administration in the Health Unit did not continue to support the human development emphasis that had been central to its mandated implementation of the government’s Healthy Babies, Healthy Children guideline. In fact, the governing concept for desired outcomes was reduced from “optimal/fullest possible development” to “healthy development”—something presumed to happen when hurts were eliminated, basic needs were satisfied, and injury and illness were attended to. In ODND terms, the learning and empowering inputs were no longer in need of systematic planning and execution. So despite an overall level of enthusiasm that prompted project staff to confidently advertise their thinking beyond their own region, project funding was quietly terminated. This demonstrates the importance of supportive continuing leadership for human development initiatives and for the need of a community body that can hold agency CEOs publically accountable for providing it.

The Future Of Interagency Collaboration For Human Development

There is little disagreement with the fact that working together is a prerequisite for human advancement. Yet our examples show that the most comprehensive attempts at working together have never moved very far along the Integration Scale. Indeed, within the past decade a university-based investigator concluded that service integration was in its infancy with few if any documented cases of large-scale success. Worse, he found that senior administrators in social support agencies believed that simply sending a representative to a meeting about some needed advancement was itself service integration, when it is
just the first step (Becoming Aware) in the process that leads to true integration.

The limited Best Start progress, the collapse of the Comprehensive School Health Project and the failed effort to integrate the school curriculum led to considerable skepticism about whether service integration via interagency collaboration was really feasible or whether it would always be stalled by something labelled “unwillingness to change”. This phenomenon is seen to have several possible explanations. Fear of failure, of the inescapable risk associated with changing, was one of these, and was exacerbated by lack of appropriate strategies and knowledge of past failure. Another is described as “protecting one’s turf”. This is a fear that in integrating services someone else will take on a role from which you presently earn status, if not financial remuneration. Further, there is little motivation for change when most community agencies are quite pleased with their current efforts, which they typically rate as “good” or “excellent”—invariably with little that would pass for credible supporting evidence. A related, fourth explanation is that to reach to the Coordination level and beyond partners have to modify their programs to better support one another’s, so in a sense lose some measure of their independent functioning.

While recognizing that each hypothesized cause is probably operative to some degree, our previous analyses of examples suggests that the most fatal impediment to service integration is that the would-be community partners and their governing ministries don’t have an effective strategy for doing it. And to learn how to use human-development-fostering strategies of the complexity described in this book requires—in our field experience—investments of time far beyond what is allotted to what is called “in-service” or “professional development” in most community agencies. This includes, as does all complex skill learning, personal coaching and mentoring.
 Clearly, advocates of human development need to be concerned about the many past failures and apparent motivational obstacles to working together for human development. But surely our best strategy will not be to dissolve into inaction but rather to determine from the successes we did have in *interpersonal* collaboration what elements must be in place for proposed working together projects to have enough chance of succeeding to warrant the expenditure of personal energy. Then we can try to identify some important community-based projects that meet these prerequisites and focus our available human development energies on these.

**Prerequisites For The Integration Of Development Initiatives (Service Integration)**

Below we propose a series of prerequisites related to the demands of the BWTS and the CSHDE components applied to expand it. We have arranged them in rough order so they might, when expressed as actions, be collectively considered a process or even a schema for undertaking a working together development project.

*Shared desire (motivation) to foster some particular aspect of human well being or development*  Our lesson from the Inquiry Project was that academic research showing that some important kind of development can be enhanced by certain interventions is not sufficient to prompt service practitioners to make the effort to learn how to do them. The senior elementary teachers our program was designed for were primarily concerned with conveying the content of the disciplines for which they were the school experts, so enhancing the problem solving performance of their students was not a pressing matter. On the other hand, all the secondary school department heads we approached believed that their discipline used some special kind of complex problem
solving process, which most students on average performed poorly, and believed that learning an organizing scheme of which all these complex processes were variants would enhance the problem solving performance of their students—and so were active partners in creating one.

A committed group of potential partners Many potential partners will respond to the emotional appeal of grand-sounding goals—such as they did for The Comprehensive School Health Project and Best Start—even to the point of progressing to the Communication level. But most lack staying power in the face of criticism or political opposition or the need for sustained program development effort. The best measure for likely staying power might be a review of the potential partners’ past actions in relation to the goal or in their continuing to support an unpopular but development-supporting venture on principle.

Clarification of the components of the schema/process needed to achieve the goal We can expand our understanding of this prerequisite by thinking that working together should be an act of intelligent self-direction comprising: (i) setting a goal; (ii) making a plan to achieve the goal; (iii) implementing the plan; (iv) monitoring ongoing progress and making changes if needed; and v) reflecting on the completed action. From this perspective the BWTS deals primarily with step (ii), which in effect involves the construction of a schema for the process on which the partners are to work together.

Consensus on assignment of BWTS tasks The optimal assignment of tasks would vary from phase to phase of the intelligent self-direction model. For example, a researcher or professional program developer might usefully be involved in constructing the plan (schema) phase, but the front line practitioner must dominate the implementation phase.
Competence in completing assigned BWTS tasks at levels required

Sensed lack of skill, and the associated fear of failure, are self-evident factors in the unwillingness to join in or continue with working together projects. These skills need to be addressed in learning terms at the outset of the project (which skills are to be learned, at what level, by what method). A prerequisite is that the opportunity for necessary skill training will be available. Partners can engage tasks at higher levels or take on new tasks as skill levels rise.

Leadership  Successful working together needs an overall initiating and sustaining person, and perhaps one for each phase of the intelligent self-direction process.

Noticeably lacking from our list are Funding and Political Support. Our experience is that the initial work on innovative working together projects is done by people already employed by service agencies or who volunteer their services out of interest and support for the goal. Additional funding is required when field trials are undertaken and data needs analysing, or for training. Political support overlaps Leadership in that politicians often spearhead thrusts for particular kinds of human betterment.

Some Potential, Auspicious Working Together Projects

We would not discourage any proposal for working together to enhance some aspect of human behaviour. For example, we would think it a wonderful project if a Council of Churches would work with secular agencies to fashion a lifelong curriculum for personal, ethical advancement. Or if social agencies that deal with young adults developed a curriculum for nurturant parenting. Or if the sovereign states of our planet worked together for world peace. But these potential workings
together meet so few of our prerequisites that, short of a messianic champion, they are not likely to be able to commence in our time.

Important collaborations for human development that do have present potential for success can be found at opposite ends of the life span. At the present time many hospitals are trying to enhance the quality of life of long-term, elderly care recipients through what is being called patient-focused care. In the accounts we have read, hospitals try to move outward from their traditional “recovery from illness” focused care by such tactics as respecting patient preferences for food and other standard elements of physical care, giving some attention to other patient dimensions, and increasing the amount of one-to-one interaction for patients through the voluntary contribution of visiting time by family members and others.

We believe that CSHDE concepts would provide the base for a more systematic approach. A basic premise would be that a hospital stay is a break in the patient’s ODND-defined pattern of nurturance in his lived days—maintained by a describable BWTS. At admission, a family member, an assigned nurse and the patient insofar as he is able would do an ODND analysis for the patient, working down from what his nurturance inputs were at their best to what might reasonably be hoped for in the hospital setting. When the hospital staff’s maximum available contribution is identified, what remains to be made up by voluntary/family effort will become clear, as will the elements of the BWTS. Political support for such a project should follow from the fact that huge amounts of free volunteer health related care would become available to offset further increases in a health budget that already consumes half the provincial budget, and the public would consider that its elderly were being better cared for. The project just awaits a champion.

At the other end of the life scale, the first effort at creating a “best start” for children born in Ontario didn’t get very far,
our judgment. But “getting the best start” is an undiscussible theme, entrenched in the all-political-party declaration entitled Ontario’s Promise and supported by a vast body of scientific literature on the critical importance of early stimulation to the fullest possible development of a human being. So it will recur and will this time, hopefully, be pursued on a more manageable scale.

In regard to prerequisites, enough has been done to convince a potential alliance of development-minded parents and up to a dozen community social service agencies that the rate of development of young children’s literacy, numeracy and social skills could be dramatically increased, perhaps even doubled, if a small investment of parental time became the community expectation. As mentioned in the earlier section on parenting, detailed, parent-friendly descriptions of the actions to be performed in this early learning have been prepared over the past two decades. Obvious provincial leaders for such a program would be officials in the Ministries of Education, Health, and Community and Social Service provincially and the community Human Development Council locally.

Though the conceptual and needed human input resources are abundantly available, this will be a slow process to implement. One huge obstacle is that children are being sent into the group learning situations of day care facilities and schools at earlier and earlier ages and so miss out on the one-to-one interaction with a primary caregiver that is so important to early learning. Another is the present understanding of what males and females could respectively and jointly contribute to childrearing. As discussed in an earlier section, enhancing parenting skills to the level required to foster optimal development will require a supporting human development program that begins in the preschool years and cumulates its impact over the school divisions. And this will need to be followed up by a transformed training program for social agency workers to better enable
them to instruct and coach parents as the primary stimulators of the development of young children.

Throughout this book we have declared, and we reiterate here, the need for a community-based Human Development Council whose mission would be to promote the fullest possible development of community citizens. By virtue of its mission, it would be a champion of all working together projects aimed at human development, including the two we have described.

In earlier chapters we have suggested that the members of the Council should be people who have had success in agencies that promote some aspect or dimension of human development. The council meetings would then represent an advanced example of working together to foster human development. Its deliberations would, plausibly, follow the path we have pursued in this book as it attempts to build a conceptual infrastructure for fostering the optimal development of community members. With initial success it could go beyond individual improvement projects to examine critically the contribution of our existing institutions and provide the conceptual tools needed for their gradual transformation.

We are hopeful that such councils will soon start to appear, possibly through the understanding that existing Social Development Councils are too narrowly focused on helping deal with the basic needs of food and housing. The breakthrough mindset will be that while we all advocate the advancement of human civilization, in the final analysis this must be measured by the degree to which we all grow as human beings.
Because this is the final chapter in our book, the purpose of committing main points to memory cannot be that they will be needed to understand what follows. So for this chapter, our argument is simply that they will need to be remembered to be an effective force in the reader’s thinking about integrating services. Our selection of points worth remembering would be:

1. The impulse to form into larger and more effective action units derives from the Pattern of Positive Growth in Developing Systems (PIDAS), which is deeply rooted in the human psyche. Thus it can be expected to find expression in all efforts for social betterment—especially when better continuing outcomes are desired.

2. In its current expression, designated “working together on behalf of children”, “service integration” refers to the mutual accommodation of agency programs, while “service coordination” refers to the mutual accommodation of the actions of their representatives in individual client casework. Both service integration and service coordination are intended to move through a sequence of more intense and more client-beneficial stages entitled Awareness, Communication, Cooperation, Coordination, Collaboration and Fusion.

3. Service Integration attempts have not so far produced visible changes in the programs of reputed project partners, and service coordination is severely hampered by this failure. Although fear of change and protection of territory offer partial explanations, we argue that the agencies’ lack of appropriate conceptual tools is the main cause.
4. Our proposed strategy for service integration centres on the ODND. It envisages service partners undertaking a series of “hops” through the ODND, moving through the columns left to right, with each partner having major responsibility for inculcating the generic model for a particular ODND column, and always entering its target column at the highest possible level of the client’s being.

5. When this dynamic schema is laid on the client over a significant period of his lived day, or week, or year, it generates a set of actions to be undertaken by community agencies. When a number of agents are involved in carrying out these actions, an integrated service plan for engaging the client takes the form of a Who, Does What, How, and By When chart.

6. Analysis of practical examples reveals that movement of a group of service agencies along the Service Integration Scale requires a progressively more sophisticated engagement of the ODND. Generally speaking, Awareness requires knowledge of the columns engaged by potential partners, Communication requires as well knowledge of levels of being from which interventions are addressed, Cooperation requires revealing the partner’s schema for nurturance tasks, and Coordination agreeing on how common schemas will be expanded over the years. Finally, Collaboration requires that the agencies use relevant CSHDE strategies to synthesize their operative schemas, develop a common growth scheme for their clients’ use of them, and that they agree on the teaching strategies required to make critical growth transitions. These agreements would allow the co-designing of a common inter-agency program that at the same time respects the particular behavioural prescriptions of any religious or cultural group committed to fostering the
development of its adherents. Fusion seems an impractical ideal, which on analysis may have more drawbacks than advantages.

7. As determined from the analysis of a series of successful and unsuccessful attempts, the prerequisites for successful working together projects seem to be: the existing motivation of potential partners to pursue a novel or demanding attempt at human development; at least a small group of these motivated individuals who can be counted on to see the project through; a clear understanding of the BWTS tasks to be performed; agreed allocation of tasks; existing competence, or willingness to acquire competence, to perform assigned tasks proficiently; a project leader with sufficient status to build necessary project support.

8. In the past, most large-scale attempts at working together, lacking an identification of BWTS tasks, have not proceeded beyond the Communication level. Two important but as yet uncompleted working together initiatives for which the prerequisites seem to be largely satisfied are a second try at Best Start for the very young and a Better Finish initiative for the very old. These only await passionate leaders.
IN THE INTRODUCTION, we described the content of the eight chapters of this book as “the development perspective”. We call the collective set of concepts and strategies in these chapters the “Conceptual System For Human Development And Empowerment”. The following paragraphs describe the origin and development of this collective set.

The ideas in this book evolved over a half-century of concerted effort to foster human development. This long period can be somewhat crudely divided into three overlapping phases. Each of these phases can be thought to have had a major concern and to have created products of continuing value, hence of priority for inclusion in our eight chapters.

**Accelerating Cognitive Development**

Our concern for the first phase was to convince ourselves, and the educational establishment, that it was possible to stimulate intellectual development beyond the pace then achieved by schools. In the 1950s, the prevailing view was that the rate and scope of a human being's physical, intellectual, and moral development were determined by an unalterable internal clock. For example, children were allegedly not “ready” to learn how to read until they had attained a mental age of six and a half. That didn’t happen on average until Christmas of the Grade 1 year. So strongly was this view believed by the educational establishment that parents were strictly warned against attempting any reading instruction before this. Not surprisingly, there was virtually no research in Canada, and very little elsewhere, aimed at enhancing the impact of instruction. Teaching was thought to be more “art” than “science”, and the common understanding was that “teachers are born, not made”.

But then, and somewhat abruptly, a stimulus for instructional research and development came into education from agriculture. Farming, like teaching, was traditionally carried out with procedures transmitted from one generation to the next. But around the turn of the century, it had been found that agricultural yields could be dramatically improved through a process that passed through five stages designated basic research, applied research, development, field-testing and implementation.

Optimism about a similar payoff from research came into education in the 1960s¹ and led to the establishment of several provincial education research institutes, the largest and best-funded being the Ontario Institute for Studies in Education. One of its Field Centres, and some of the academic and research staff associated with its Department of Applied Psychology, including one of the authors of this book, set about to demonstrate that children could acquire important skills much earlier than the so-called developmental benchmarks indicated.

This demonstration started by showing that the Piaget “conservations”, thought of as foundations for rational thinking, could be attained by children a full year earlier or more than was previously thought possible—a significant advancement when you are only five years old.² But far more dramatic results were obtained with various common forms of inquiry and problem solving, such as rate/ratio, causal thinking and decision-making. Here, in one of the earliest pilot projects, the performance of trained grade six students equalled that of grade twelve students of comparable IQ, an apparent gain of six developmental years from thirty hours of instruction. At the same time, a group of grade seven “opportunity class” students, reading at a grade three level, matched the performance of regular grade seven classmates on a comprehensive problem solving test after only 15 hours of instruction.
Such results created an enormous unshakable optimism about human potential. Indeed, a group of OISE-based researchers concluded that children could acquire intellectual skills at half the age the school expects them to, and over the intervening years they never found reason or evidence to abandon that conviction. We saw children who had been introduced to these strategies progressively separate themselves from their peers in intellectual performance in school and work as the cognitive demands escalated.

Besides our unflagging optimism, this first phase gave us two powerful tools that we have incorporated into this volume. The first was the concept of a “mental model for a process”. This is a representation in visual (diagram) form of the component steps of the process and their connection (e.g., the order of their occurrence over time)—a mental tool that seemed especially useful and necessary for learners with low verbal ability.

Another tool was a method for teaching such models—what we called “interactive teaching”. This method had the student reveal his existing fragmentary mental model by performing a relevant task, and then confronted him with learner-relevant data that his mental representation (also called a schema) could not assimilate. We then counted on the human mind’s natural tendency to integrate data into meaningful patterns to enlarge the schema so that this assimilation could occur. Apparently we were compacting into a brief (matter of hours) but highly focused learning encounter what normally takes years to occur through typical ongoing life and school experience.

Creating A Curriculum Development Technology

In the second phase of our history, we thought that our best chance of getting these evidently powerful teaching methods into the hands of teachers would be to incorporate them into the curriculum documents that the program departments of large
school boards were, in the ’60s -’80s, preparing for their teachers. A first task here was to identify growth paths for our problem solving models—we called these paths “growth schemes”—so that competence in their use could be pursued over a period of grades, as happens with arithmetic and language skills.

Within the past few years we have come to regard growth schemes as reflecting a universal Pattern of Ideal Development in Advancing Systems (PIDAS) by which separate systems (e.g., component actions) are formed into more comprehensive and potent larger systems. We then wrote accompanying teacher “scripts”, that is, verbal accounts of what had been said in our pilot studies by teachers and learners that caused the latter to successfully accomplish important transitions in these growth schemes.4

Another technical curriculum design problem was that our problem solving emphasis had to be incorporated within the “philosophical perspective” presented by Ministry of Education curriculum guidelines. Because there was no technology for doing this, we had to create one, in the process adding some new tools to our repertoire of human development strategies. The first was a so-called “image of the educated person”, a summary description of the qualities (e.g., skills, knowledge, attitudes) a fully schooled individual was expected to display, and the life contexts in which he was expected to do this. In the 1980s, the official Ministry of Education image was expressed in guidelines—largely as a result of our input—as “the self-motivated, self-directed problem solver”.5

We then processed this image through an “educational objectives category system” to get more specific intended learning outcomes, which could then be growth-schemed. The main categories of learning outcomes were: knowing that (conceptual knowledge); knowing how to (procedural knowledge); being able to (skill), and doing (expression of attitude)—but there were many subcategories.
This period was also marked by the establishment of graduate education courses in curriculum development and work with local school boards and school text authors. After several revisions, a graduate level text on curriculum development entitled *Curriculum Development For Effective Instruction* was published in 1985, co-authored by the one of the authors of this book.⁶

In summary of the second phase, we had to invent a curriculum development technology that allowed us to make the transition from comprehensive Ministry learning goals to the day-to-day lesson plans of classroom teachers. This technology remains relevant today as social agencies try to develop learning programs for a variety of clients.

**Constructing Mental Models For Complex Processes**

We think of the third phase, which started in the mid ’80s and will likely continue as long as the system is used, to be the attempt to build process models for increasingly complex and comprehensive human tasks. Our first effort was to sequence the problem solving models into a generic strategy for investigating topics systematically in school (Topic Elaboration) and for improving performance in important life tasks outside school (Doing Important Things Better, or DITB). The former had huge payoffs when students later wrote papers for university professors who expected to see orderly, intelligent development of assigned or self-chosen topics for course credit. Together these schemes seem to provide the missing basis for intellectual empowerment, and are at the heart of our chapter on that subject.

The challenge of constructing more complex models moved into high gear when the authors of the predecessor to this book brought the conceptual scheme to bear in projects intended to foster comprehensive human development. First, one of us
helped a regional group formed to foster responsible parenting to develop a two-dimensional chart—which they named the Nurturance Matrix—whose row headings were valued human dimensions and whose column headings were growth-supporting actions that could be applied to each. In a second project, another of the authors worked with a Big Sisters organization to adapt this matrix to Big Sister/Little Sister interactions, initially renaming the matrix the Helping Chart to reflect the basic posture of the organization, and reworking the dimensions. But as this work progressed, it became obvious that each development-supporting action had a potentially negative counterpart, so that there was in effect a domain of hurting to be avoided. This understanding was incorporated—via the Early Learning child development project in which the authors were most recently involved—into the Expanded Nurturance Matrix (ENM) that appears in this book. At the same time (early 2000s), generic models for the ENM tasks were developed and added to those previously constructed for teaching (Model for Educational Processes, or MEP) and Doing Important Things Better (DITB).

In order not to fragment the individual, social agencies clearly needed a coherent holistic model for a human being that tied together the separate dimensions of development in the ENM (later renamed the ODND). Such a conception, initially called the Model for a Fully Functioning Human Being, was readily retrieved from parents and social workers and has proven very popular among regional social workers. It envisages the individual as an intelligently self-directed person (an upgrade of the self-directed problem solver), capable of initiating nurturant actions toward himself and others from the deepest dimensions of his being (self-transcendence, principles, and values) and carrying them through to successful completion, thus enjoying that most positive of emotions that we call “positive outflow”.
The most recent effort in building complex mental models was stimulated by a six-year grant for developing the means to upgrade parenting skills. As it is presently being applied, this community-based scheme starts when young people begin to form attractions to the opposite sex, but fly too quickly into “inauspicious parenthood”—taking on an immensely complex task for which they are simply not ready. The hypothesized antidote is to have young people move through a sequence of learning experiences in which they acquire increasing competence and interest in fully nurturing themselves, a life partner, and any children that result from their union. So we can say that the attempt here is to create a comprehensive mental model for “becoming an effective parent”.

In 2010 the four principal developers in an early years project published an account of the concepts and strategies that had emerged in a book entitled *Fostering Human Development and Empowerment: A Conceptual Bridge Between Vision and Action*. Since then, the authors have seized opportunities to test the power of CSHDE ideas to deepen understanding of and suggest more robust interventions for problems that are aired on public news channels, documentaries and TV education programs. It is largely because such deepening and enhanced intervention has consistently taken place that we have been motivated to write this updated revision to our 2010 book.

Currently we look for special “golden opportunities” to use CSHDE ideas to better achieve the motivated goals of others. For example, there is a growing movement to broaden the care of patients in long-term-stay facilities and the ODND provides a far broader conception of how to move beyond the physical dimension than we have seen in any of the advertised “innovative” or “best practice” programs. Our analysis of this opportunity appears in Appendix B under the title *The Domain of Ideal Human Care*. 
The most exciting of these opportunities stems from Canada’s Governor General David Johnson’s urging Canadians to join him in creating a “smart and caring nation in which all Canadians can succeed, contribute and develop their talents to their fullest potential.” This exhortation is being followed up by the establishment of Community Foundations in all communities of size in Canada. These are community groups that fund efforts at community betterment and if strengthened by CSHDE concepts could become a massive force for social advancement and for the personal growth of citizens. Our thoughts on how the Governor General’s vision could be achieved are found in Appendix C under the title Advancing Humanity Through Community Foundation Projects.

Reflections On Our Attempts To Improve Educational Practice

CSHDE came into being as the result of a particular and allegedly unique set of circumstances. When The Ontario Institute for Studies in Education (OISE) was created in 1965, the first concern of its academic staff was to gain previously lacking academic respectability for educational theory and research. It did this by adopting the traditional academic research-practice model. In this approach, university-based staff did research on some matter of scholarly/discipline interest, published the results in peer-reviewed journals, and conveyed this new knowledge to the students who attended their graduate programs—in this way moving upward through the academic ranks.* Even though OISE was located in the Department of Educational

* For example, Ausubel investigated, and became famous, for, what he called meaningful verbal learning, but his journal-published research on advance organizers involved learning verbal passages of a kind that students were not likely to encounter in the school curriculum.
Theory at the University of Toronto, a demonstration of actual positive impact on educational practice was not a prerequisite for success in the academic world. This apparent devaluation of practice was aggravated by OISE’s peremptory abolition of the Ed.D., long associated with a concern for and focus on the practice of education.

Predictably, if only in hindsight, this approach soon evoked hostility from practitioners and their professional organizations—quickly prompting a chorus clamouring for OISE’s abolition. So the Ed.D. was re-established. Another part of OISE’s response, and this reputedly unique in North America, was to establish a number of regional Field Centres, whose full-time, on-site, professor-level staff had as their primary responsibility to help practitioners deal with what they (practitioners) envisaged as problems in their practice.

As reported earlier in the historical account, a first response to this responsibility by a group of people who were later major players in CSHDE was made to a request to help teachers foster inquiry skills. The right for learners to learn from their own inquiries had been a major recommendation of a 1960s Royal Commission on Elementary Education, but this presented a challenge for which senior elementary school teachers had had no prior successful experience.

Had there been a response from the university-based academic community it would likely have followed the accustomed path of: some academic gathering together the most prestigious current theories and research on learning through inquiry; presenting these to graduate student teachers in university-based courses and requiring these students to make some written response, either to the theories themselves or as a attempted application in their own practice.

In summary of our long, often decades-sustained, contact with practitioners in their own teaching environments we would say that they seldom changed their practice significantly
as a result of passing through the academic theory-to-practice on-campus approach. Rather, they temporarily become excited about the promises of potential improvement in practice made by exponents of the theoretical system at the focus of their current year’s graduate course; wrote a couple of papers in reaction to this system; and sometimes carried out a theory-related intervention. But this experience would drop out of their active memory as soon as they entered the next course—at which point they developed a new but comparable enthusiasm for the next theoretical system. We have seen competent teachers go through this cycle a half dozen times while earning their master’s degree, but within a year of its completion they retained little of the experience but the names of the theorists to which they were exposed and a marginal and diffuse idea of the main tenets of their theory.

Our field-based response, by contrast, deliberately focused on the learner behaviour intended to result from the teacher’s intervention—in this case, the ability to independently conduct common types of inquiry. We then turned to theory to locate a concept that would allow us to construct a unified approach to these different types. We found it by broadening Ausubel’s idea of an advance organizer\textsuperscript{10} to apply to inquiry models as well as knowledge structures, and we constructed as a skill organizer, a general model for problem solving (an alternate term for inquiry), shown in Fig. 8.3, to which all the varieties could be related meaningfully, hence (the theory and research suggested) learned quicker and retained longer. The resulting models were tried out by their developers—first on themselves and other individual learners, then refined with classes whose teachers wanted to improve problem-solving performance but had so far had no success. These classroom trials were demonstrations of teaching techniques that the teacher observed and then, especially when they produced results of an “I didn’t know learners of that age could do that” magnitude, invariably
attempted to replicate. In stark contrast to their involvement in the theory-practice strategy, these teachers rarely failed to incorporate these successful teaching approaches into their permanent repertoire of instructional strategies.

When we had had enough successes to be confident about the power and teacher-usability of a teaching approach, we felt justified in teaching it in our regional off-campus, graduate curriculum development courses. Also, in the hope of disseminating the ideas beyond the reach of our face-to-face contacts, we would in time write and make available a detailed account of the intervention. Because such an account was more conceptual than typical professional teacher curriculum writing, yet was still focused on practice, it came to be called by many “scholarly professional writing”.

This cycle of (i) starting with desired but still unrealized learning outcomes of practitioners; (ii) drawing on ideas from theory about human learning and insights from life experience to construct interventions plausibly capable of realizing these outcomes; (iii) testing these interventions against life experience, first with oneself then with colleagues; (iv) demonstrating their effectiveness in the classrooms of teachers who wanted to achieve the learner outcome but had previously failed in their attempt to do so; v) coaching teachers in their attempts to replicate the result and vi) describing the details of successful interventions in scholarly professional writing, became the common strategy for advancing CSHDE ideas and strategies.

Most of the practitioners who attended our courses chose, after involvement in just one of these improvement cycles— and especially if it produced an “I didn’t think that students of that age could do that” result—to incorporate the technique in their own practice, sometimes going the extra step of advocating and demonstrating its power to professional colleagues. But a relatively few others, after experiencing one or more successful CSHDE interventions, became enthusiasts of the system as a
whole. In some cases we had active professional and conceptual contact with these people that extended over decades as they moved through a succession of professional roles—from teachers, to principals, to graduate students, to consultants, to superintendents, and for some even to directors of education and professors of faculties of education. The long-term, interactive connection with educational practice gave CSHDE proponents an “extended field experience” with human development attempts that could not emerge from the traditional theory-to-practice strategy of conventional university engagement of practice.

Looking for reasoned conviction of impact rather than for academic advancement, the academics involved in the development of CSHDE did not spend much time conducting formal research to confirm the convictions that they had already acquired from successful cycles of engagement. Still we think it is reasonable to advance as plausible hypotheses the conclusions that emerged from our extensive field experience and we do this occasionally in the text.

That said, many of the propositions, ideas and proposed interventions in the book have only gone through the first phase of the improvement cycle—the test for congruence with common sense and the authors’ personal life experience, and for that reason must be considered to be highly speculative—as things to be run through the improvement cycle of any intended user. This CSHDE speculation most frequently occurs when concepts or strategies commonly acknowledged to apply to the physical dimension and levels of being are hypothesised to apply to the “higher” dimensions and levels of being as well. An early example in the book is applying the five nurturing functions that are evident for the physical dimension to the other dimensions, in this way creating the ODND. It can be said in this case however that, and as the text reports, the ODND has been processed through the improvement cycle of at least one
credible human development-oriented agency and then actually incorporated into its policy documents. As well it has provided a comprehensive framework for thinking about the nurturance requirements of groups in need—immigrants, aboriginals, and wards of social agencies being current examples.

The rethinking of the CSHDE experience reported in this Appendix has caused some perplexities for the authors as to what should be done with this system in its present state of development. A range of responses has come forward. At the ‘minimal use’ extreme is the thought that CSHDE is not implementable as a complete system in present social circumstances and so should be left to quietly expire along with its authors and enthusiasts. But the fact that there has been considerable practitioner enthusiasm for particular CSHDE strategies and concepts, and that some have found it a reliable guide for constantly advancing their educational thought and practice, suggests an ethical obligation for the remaining authors to at least leave practitioner-useable accounts of the most successful ideas in accessible libraries—an obligation we hope yet to meet.

The most ambitious use would result if realizing human potential becomes a genuine community goal, supported by something like a community-based Human Development Council, and if some academics and professionals living in the community are willing to commit personal time to social advancement through human development. Any group established at that time to pursue the community’s goal of “agencies and individuals working together to foster the fullest possible development of all citizens” will not be able to avoid the questions/tasks that have framed the chapters of this book. Hopefully such a group would find our answers a useful starting point from which they could construct their own more advanced and personalized conceptions of how to engage the tasks that fostering human development entails.
A STAY IN hospital has widely been thought of as a negative life experience, interruptive of personal development, and even “dehumanizing”, many would say. So the public will be gratified to learn that many hospitals are now trying to make the hospital stay the most positive experience possible for patients and their families, an aspiration commonly summed up with the expression “patient-centred care”. Fundamentally this comes down to hospitals thinking of the patient as “choice-maker” and devising ways they can give him more choices in regard to such matters as his food, exercise and timing of hygiene tasks.

While such practices seem to have positive impacts on patient physical and psychological well-being, and plausibly even reduce hospital stays, they primarily address the patient’s basic physical needs. Hospitals that aspire to deliver care beyond such an elementary level need to take a further step, moving beyond patient-centred care to what could be described as “person-centred care”. It is apparent that many hospitals have such ambitions, as outlined in their Vision and Mission Statements which today invariably refer to providing “quality care”, “highest possible care”, or “outstanding care”.

An early step in achieving this, to “humanise” the hospital stay in some sense, is to broaden the conception of the patient from, essentially, an ailing physical system in the process of healing, to a complete, or whole person. In addition to the physical body (the malfunctioning of which normally brings patients into the hospital care program), human beings are widely thought to have an intellectual dimension that allows them to process information, to reason and reach conclusions and to make rational decisions. They have values, that is, things
they seek out, acquire, maintain or bring into a higher state of being in the anticipation of pleasant engagement and benefit to themselves and others. They have principles that tell them if actions they contemplate undertaking are the right thing to do. And today most acknowledge that mature human beings also have a spiritual side, that is, a sense of connection with things that extend beyond their own lives in duration and importance.

These are all components or dimensions of a fully functioning human person, so the number of these that are systematically engaged determines the breadth of a person-centred care program. One would think the determination of intended breadth would be made by a Board of Directors of the superordinate health authority in a region on behalf of the citizens served by the board. A hospital group trying to develop a person-centred care program will need to develop its own list of the care dimensions that captures its conception of the human being it is trying to serve. One way of doing this is to recall the dimensions that a parent expects to see emerge as their child grows. Another is to think of the qualities we look for in a spouse, friend or colleague. The list that emerges from such exercises usually has much in common with the one presented above.

A second step in making the hospital stay more beneficial and human is to broaden the concept of care itself. To do this we have to ask what actions we could take in caring for any human dimension. Protection from hurt and providing for basic needs are the most basic kinds of care and are intended to ensure that a person’s existing level of development in that dimension is not diminished or jeopardized. But in a broader interpretation, quality care includes but goes beyond such protection and maintenance, to promoting continuing growth.

Protecting and promoting growth are the two ends of a continuum of caring actions. The full range of potential caring actions, retrieved by recalling, for example, what a thoughtful
mother does to keep a child in a safe, healthy, growing physical state would be: protecting from development-impeding hurt; meeting basic maintenance needs; facilitating recovery from illness and injury; teaching self-care processes (e.g., hand washing) and empowering the adapting and enlargement of these processes as life circumstances change. It can be convincingly argued that the same sequence would apply to the other human dimensions. In the ideal, this sequence of actions would be carried out for all human beings, including patients in hospitals and residents of long-term care facilities.

**The Domain Of Ideal Human Care**

A conceptual scheme that clarifies the meaning of ideal care is shown in Fig. B1.

In this table each of the dimensions attributed to a human being (the row headings) is engaged by the full range of actions needed to keep the dimension in a healthy growing state. The content of any cell would be the specific detail of that type of caring action for that dimension. For example, in addressing the shaded cell we would create a process that enables a patient to maintain the greatest possible contact with the things he values.

The total set of cells seems, sensibly, to define the entire field or domain of potential caring acts for a human being and so could appropriately be named The Domain of Potential Human Care or The Domain of Comprehensive Human Care. At the same time, because the set of actions it suggests for quality care far exceeds what is even conceived as possible by most agencies that offer care programs, it might also be thought of as The Domain of Ideal Human Care, and this name will be used throughout the rest of this account. If such a conceptual scheme should come to be used in a hospital, staff would likely invent their own simpler name for day-to-day use, such as The Caring Chart.
On first encounter the Domain of Ideal Human Care may seem an abstract, theoretical concoction of some academic mind. But to the contrary, an early version of the chart was developed almost two decades ago by a group of practitioners formed to promote responsible parenting of young children. This group included front line professionals from the three relevant provincial Ministries, as well as volunteer consultants. Later, a version called ‘The Helping Chart’ was adopted by an organization that provides care providers for young females,
and was found to be effective in suggesting a more extensive and balanced program of growth-supporting activities. It can reasonably be argued that this kind of framework is an essential conceptual tool both in personal development and in upgrading the care-supporting efforts of individual organizations. It could also act as a conceptual framework within which the partners in care could work on behalf of shared patients.

The potential use of such a scheme in creating quality care programs for patients seems relatively straightforward. On admittance to an anticipated stay of some duration, a care team (the “partners in care”) would be formed with a patient advocate as head and with the patient, family members, professional hospital staff and assigned volunteers as members. An early task would be to make an existing-care-prior-to-admittance profile for the patient, that is, to determine the existing pattern of care in his life (what the hospital care plan would intend to maintain, best approximate or in some cases actually exceed). Family would normally have critical information here, especially for young patients, and are normally the ones who have the most passionate interest in a comprehensive care programme for loved ones. This network of people often try to approximate as best they can this nurturing behaviour while the patient is in hospital and are willing to contribute personal time and resources to facilitate more subtle interventions aimed at the higher order dimensions. Indeed, it is often astonishing to observe how much personal resource will be directed toward such efforts by those who are really committed.

The team would collaboratively make a care plan to which all would agree to subordinate their own inputs: essentially this plan is a designation of the patient dimensions to be addressed and the range of caring acts to be attempted for these dimensions. Common, mutually supportive initiatives by team members would be identified as well as those unique to the particular members. At this stage the plan could be described
as being person-centred, providing nurturance for all human dimensions while being adjusted to the unique circumstances of the specific patient. Without such planning, many efforts made by family and volunteers are uncoordinated or even in conflict with one another and with the hospital’s own efforts, thus minimizing their potential combined impact.

The family’s involvement at the intake, plan-making, and care provision stages also justify thinking of the care program as being family-centred. In addition, non-family volunteers with special patient-engagement skills might be recruited to the care team from the hospital’s volunteer pool.

The implementation of a fully rationalized hospital care program is a long-range project, perhaps most productively thought of as an appropriate goal for Canada’s 200th anniversary in 2067. There will be some resistance to overcome at first, especially from those who see the exclusive responsibility of hospitals to be the efficient carrying out of medical treatments. However, the task requiring the most sustained effort will be determining the most effective entries for the domain cells—actions that are demonstrably effective for a particular care component for a particular human dimension. These will have to be patiently accumulated, in part from the successful life experiences of the care team, including its own on-site experiments.

Nonetheless, three emerging thrusts virtually guarantee that rationalized human care will win out in the long run. Perhaps the most important, humanity seems to have reached the stage that there is strong disapproval toward all forms of perceived dehumanization, no matter its auspices. Secondly, the hospital stay creates, especially in its extended form, a huge and unique reservoir of personal time unencumbered by the countless tasks and worries of normal everyday life. The number of hours of time available for personal development during a long-term hospital stay ranks with the time normally spent, say, attaining
a master’s degree. A long-term patient, for example with a broken limb, could take such an opportunity to reflect on and develop his self-transcendent dimension, or devote many hours to some form of specialist learning. Finally, there is a growing sentiment that a life without volunteering for the public good is only partially fulfilled, so the large volunteer contribution necessary to execute quality care could reasonably be recruited from many sources, especially from the vast, as yet untapped, pool of unemployed young looking for work experience and early retirees.

Over time care plan makers will progressively learn how to make effective patient-care provider matches within a resourced Domain of Ideal Human Care. As a result, a point will soon be reached in which, when the best possible use is made of in-hospital time, an anticipated stay in hospital will no longer be dreaded as a hiatus in or reversal of personal development. Rather it will be understood as an experience from which one can actually grow in important ways as a human being.
APPENDIX C

ADVANCING HUMANITY THROUGH COMMUNITY FOUNDATION PROJECTS

The Governor General’s new Vision of Canada, if intelligently pursued through supporting Community Foundation projects, could set Canadians on a course of citizen development that serves as a model for human advancement.

IN 2012 OUR Governor General proposed a new vision for Canada. He called on us to help create a “smart and caring nation in which all Canadians can succeed, contribute and develop their talents to their fullest potential”. In explicitly calling for the development of the human potential of its people, this vision is a major advancement over previous conceptions of what Canada is or could become. These have spoken to our political freedom and rights, our cultural diversity, our sense of environmental stewardship and our pursuit for justice. These are very desirable attributes of a society but they do not call for the fullest possible personal development of Canadians, for them becoming the best that human beings can be. If we were to create and implement a strategy for fostering the growth of all Canadians and make significant progress in implementing it by our 200th anniversary, we would set a unique example and become the model for the advancement of humanity on this planet.

The strategy proposed for realizing human potential is to create a smart and caring nation. We should be encouraged that there is already a Canada-wide association of Community Foundations in place, each an organization that funds projects providing new opportunities for personal development. To give a simple example, the creation of a flower garden along a public walkway, a frequently encouraged project, provides an opportunity for both the creator and passers-by to experience
whatever kinds of personal growth can result from interaction with nature that they might not otherwise have had.

However, we know from experience that opportunity by itself rarely translates into personal development. While the aforementioned flower garden may offer countless opportunities for citizens to engage nature, the truth is that most will give the flowers but a passing glance at best, a momentary sensory experience with no plausible developmental impact. Something more than opportunity is clearly needed.

**Converting Opportunity To Development**

The history of Ontario’s educational system shows us that for learners to reach their potential in a given subject, they must be engaged with a learning program containing three distinguishable curriculum components. First, it must contain a clear description of the skills and attitudes that make up competence in the subject. Second, levels of use of these skills must be defined and set as expectation for increasing skill over a set period of time. Finally, teaching methods must be devised that are demonstrably effective in moving learners along this path of growth. Experience has proven that development of any human talent or aptitude is proportional to the number of these conditions that is met in the program brought to bear on participants.

To illustrate, when these three components of an arithmetic curriculum are applied, learners reach their potential in regard to their speed and accuracy of computation. To give another example, advocates for many sports—including swimming and tennis—have incorporated all three components in their training programs and as a result bring participants to successively higher levels of performance, many approaching the limits of human potential. For most complex mental skills, however, neither levels of performance nor effective teaching
methods are often identified in school curricula and growth (e.g., in decision-making) is surprisingly small over broad stretches of life. And to return to our flower garden example again, the promoters may have created a visual image (description) of the product, but are unlikely to have thought through the kinds of cognitive, ethical, and spiritual development impacts it could have, let alone how these impacts could grow over time, or the methods by which growth could be stimulated. So it is unlikely that the garden produces beneficial growth in any citizens—except possibly the handful who actively tend it.

So as a first essential act of smartness, a caring community will act to maximise the developmental impact of its present and future projects. It will achieve this by insisting that a serious attempt is made to address the three conditions for converting opportunity to development in all Foundation-supported projects. Returning once again to our flower garden example, the applicants could reasonably be expected to give some detail about what impact(s) they are expecting to have on citizens with their product—i.e., what valued qualities they are hoping to enhance. These might include an enhanced aesthetic sensitivity; knowledge of and skill in growing a particular kind of flower; a better understanding of the interaction of different kinds of plants. The applicants might also be expected to have some common sense notions of levels of attainment of these objectives, at least sufficient to get a sense of how much impact the project actually had.

**Realizing The Potential Of Human Beings**

Our Governor General is calling on all Canadian communities to establish a Community Foundation by 2017. If the Foundations were to adopt the three conditions as policy, this would enable, before our 200th anniversary in 2067, a half century of effort at stimulating development. This could encompass important
human potentials that we believe are capable of being developed but have so far been resistant to intervention. These include:

A *lifestyle conducive to optimal health* We understand that physical health is dependent upon adequate diet and exercise, but have yet to learn how the engagements of our physical, intellectual, emotional, ethical and spiritual dimensions can be integrated within the lived day for optimal health.

_Egalitarian gender relations in which spouses become the chief contributors to one another’s development_ People who spend large amounts of time together, such as spouses, have the opportunity to construct reciprocally nurturing relationships that become the dominant force in each other’s personal growth—but they need to be given yet-to-be-discovered strategies for this construction.

_Relations between dominant Canadian cultures that reach above civility-level tolerance to embrace mutual enrichment_ Most Canadians believe that the existence of our three major cultures is a resource for our collective advancement as a nation, but we have yet to discover how these cultures can learn and grow from each other.

_A reciprocally nurturant relationship with nature_ As we become increasingly urbanized, we have to find ways of maintaining that direct interaction with nature that many believe to be a prerequisite for our physical and psychological health.

_An overriding sense of life purpose that transcends material acquisition_ Human beings collectively have the wherewithal to live a life of physical well-being on this planet, but many sense that this is but a means for realizing a yet-to-be articulated, overriding goal for human existence.
Let’s hope this strategy of translating the citizen intuitions for community improvement expressed in Community Foundation projects into explicit growth advances in valued human qualities will become the core of our care in Canada. Then, reasonably, we might expect that by 2067 Canada and Canadians would be engaged in a unique process of development that will make us the stimulus and guide to humanity’s further advancement. As Canada assumes its guiding role, it will give new meaning to the ‘true north’ we ‘stand on guard for’ in our national anthem.
NOTES

Introduction


Chapter 1


Chapter 2

1. Ibid.
at an invitational conference in Toronto, Chairman W.R. Wees, April 16–18 1970).

7. Moore, Care of the Soul.


Chapter 3


2. Program and Services Committee, Big Sisters of North Bay, “Understanding and Using a Helping Chart” (North Bay, ON: BSNB, April 1999) (written commentary).


**Chapter 5**


Chapter 6

1. Chartres, “Address by the Bishop of London”.
4. McCain and Mustard, Reversing the Real Brain Drain.

Chapter 7

4. Emmett Hall, L.A. Dennis et al., Living and Learning: The Report of the Provincial Committee on Aims and Objectives of Education


7. There are a number of articles about long-term care programs in Hospital News Vol. 27(4), April 2014. Retrieved February 26, 2016 from https://issuu.com/hospitalnews/docs/flip_april2014_53c6a57bffaba7


Chapter 8

1. Hall, Dennis *et al.*, Living and Learning.


6. Floyd Robinson et al., Fostering Human Development and Empowerment.

7. North Bay Parry Sound District Health Unit, A Model For Healthy Relationships and Healthy Sexuality for Grades 7–9 (North Bay, ON: North Bay Parry Sound District Health Unit, 2007).

8. Wayne Croxall, “A Curriculum For Virus Management”, program design proposal prepared for a meeting with the Patrick4Life Team and representatives from the North Bay Parry Sound District Health Unit (unpublished typewritten manuscript, June 2011).


Appendix A


3. Robinson, “To Create a Thinking Program for the Elementary School”.


7. Floyd Robinson *et al.*, *Fostering Human Development and Empowerment*.


9. Hall, Dennis *et al.*, *Living and Learning*.


**Appendix B**

1. There are a number of articles about patient-centred care programs in *Hospital News* Vol. 27(4), April 2014. Retrieved February 12, 2016 from https://issuu.com/hospitalnews/docs/flip_april2014_53c6a57bffa7

**Appendix C**

1. Johnston, “Installation Speech from His Excellency the Right Honourable David Johnston, 28th Governor General of Canada”.
THIS GLOSSARY CONTAINS the acronyms and key words used throughout the book. The latter are used in a frequently unique or idiosyncratic way that attempts to cumulate their meanings.

3 R’s: Reading, ’ritin’ (writing), and ’rithmetic (arithmetic).


cognitive reappraisal: The deliberate modification of a (usually negative) feeling through such actions as recognizing the existence of the negative response and reinterpreting the meaning of its precipitating cause.

conscience: An internalized representation of PIDAS that is activated in consciousness when an action is contemplated and the degree of accord with which determines the sense of rightness (goodness) or wrongness (badness) of the action.

CSHDE: Conceptual System For Human Development And Empowerment: The system of concepts and strategies that constitute the eight chapters of Achieving Human Potential: A Plan For Growth. It was not actually named until the 2010 book (Fostering Human Development and Empowerment: A Conceptual Bridge Between Vision and Action), and even there did not appear in the title, but rather as the named subject/title of the Introduction.

CSHDE thrust: A process, beginning in the late 1960s, in which concepts and strategies for fostering human development began to be developed and cumulated into what was named CSHDE in 2000.

CSHDE projects: Attempts, within the CSHDE thrust, at stimulating human development that deliberately used CSHDE strategies or concepts.

culture: The total set of ODND engagements a human group has created over time to get the most (positive affect) from this life.
cultural integration: A process in which possessors of two distinct cultures acquire and adopt strategies for human nurturing from each other. Frequently, if not most commonly, these strategies are technologies for dealing with the material world, but could be ways of engaging any level of being.

curriculum: All the growth-stimulating stimuli brought to bear on learners by their teacher or instructor during their engagement of a particular topic or subject. Curricula can be visible or hidden, and can be carried out in any life context in or outside schools.

curriculum guideline: An authoritative document that identifies the intended learning outcomes of a curriculum, and offers some general directives on how the elements of A Model For Educational Processes (MEP) are to be engaged to achieve these results.

curriculum unit: A curriculum on a given topic, usually with enough cumulative lessons to cover the content of a book chapter.

develop: See “grow”.

developmental benchmarks: The average age at which designated levels of selected physical, intellectual and social characteristics emerge in a population of children.

dimension of development: An aspect or characteristic of human beings that grows over time. CSHDE recognizes five dimensions: physical, intellectual, valuing, ethical (principle-using), and self-transcending (spiritual).

DITB: doing important things better.

empower: In its highest form, to give learners the means to stimulate their own, continuing development. In its weakest form, to give permission to perform some process. CSHDE postulates a hierarchy of seven increasingly more complex levels of empowering.

ENM: expanded nurturance matrix.

fully functioning: The capacity of a human being to bring all levels of being into the engagement of life tasks in an intelligently self-directed way (a capacity of “a fully functioning human being” or “a complete person”).
GNP: gross national product.

grow, develop: To become larger in some sense (the sense readily identified for the physical dimension, but requiring further specification or conceptualization for deeper/higher dimensions).

growth plan: A common path through a growth scheme followed by a group of learners simultaneously.

growth scheme: The content of a two-dimensional chart or table whose column headings are the steps of a process or schema and whose column entries are a progression of increasing levels at which these steps can be performed.

HDE Group: The Human Development and Empowerment Group (2000-2010) was an interagency group of four individuals who, building on their collaborative work in a funded early learning project, published a first version of CSHDE under the title *Fostering Human Development and Empowerment: A Conceptual Bridge Between Vision and Action*.

HDTs: The Holistic Development Teaching Strategy.

health: The condition of human dimensions that enables their working together to perform essential life tasks. This is a broadening of the traditional definition of health as being free from illness and injury.

healthy development: Occurs when actual development keeps pace with developmental benchmarks or developmental milestones. This expression is used primarily by medical people.

ICOM: internal consciousness-orchestrating mechanism.

ideal cultural cross-enrichment: When two cultures systematically compare their technologies for life tasks, and determine how their separate strengths can be combined to get more than the present positive affect from life.

IDSL: Interdisciplinary Skills List.

image of the educated person: A visualization of the qualities we want a person who has successfully completed a given curriculum (is fully educated in that curriculum) to display as he engages the unavoidable tasks in major life focuses. Analysed as “qualities in contexts”, it suggested the major goals for that curriculum.
instructing: See “teaching”.

intelligent self-direction: The ability to enact the process in which (i) a goal is set; (ii) a plan is developed that is capable of achieving the goal; (iii) the implementation of the plan is monitored and revised as required; (iv) the completed action is assessed for evidence of success and for implications for future engagements of the goal.

ISD: intelligent self-direction.

IQ: intelligence quotient.

leadership: The ability to get a group to perform an intelligently self-directed pursuit of shared goals.

learning: An increase in the level of performance not attributable to maturation or short-term, spontaneous variations in the effectiveness of system functioning.

level of being: A unique state of consciousness that arises when any dimension of development is activated. Thus the levels of being in this book are: physical, intellectual, valuing, ethical (principle using) and spiritual (self-transcendent).

maturation: The growth that occurs in a human dimension spontaneously, when its basic needs are met, without specific teaching or focused stimulation.

MCYS: Ministry of Children and Youth Services.

mental health: The ability to consistently generate positive outflow across life focuses under typical life challenges.

MEP: A Model For Educational Processes.

mind: Everything that can come into a person’s consciousness, either intentionally or as the projection of subconscious processes. Mind remains a mysterious entity that is commonly confused with brain.

ODND: Optimal Development Nurturance Domain.

OISE: The Ontario Institute for Studies in Education.

optimal development: A process in which an individual grows his special and shared human capacities to the largest degree that is possible with the equitable sharing of development resources.

In CSHDE, optimal development is considered a more realistic
social goal than developing full potential but more advanced than realizing healthy potential.

**PDLS:** principle of development in living systems.

**personality:** The sum of the content of his levels of being that an individual consistently reveals to others.

**PIDAS:** pattern of ideal development in advancing systems.

**positive outflow:** The process and resulting emotional state, when in the pursuit and attainment of a meaningful goal, the levels of being are engaged from the deepest level outward thereby cumulating the good feeling resulting from their individual activation.

**procedure:** A fixed set of steps for carrying out a process.

**process:** A set of coordinated actions that act together through a supporting system of interacting parts, to reliably produce a result.

**psyche:** An alternate name for mind or consciousness.

**psychic energy:** The energy, experienced as the ability to bring thoughts to consciousness, that is available to the self.

**quality of life:** A life has quality to the extent that its optimally developed levels of being create positive outflow during the engagement of its personal health, other people, paid and volunteer work and the physical environment. Historically an advancement on “standard of living”, its rare definitions have stressed experienced satisfaction in the engagement of life focuses.

**schema:** The mental or visual representation of the components of a process, identified as variables that can be given values that make the process work most effectively in a particular situation. The representation may be a linear presentation of components or their spatial arrangements to form a pattern.

**self:** A hypothesized executive agent of consciousness that we understand to be the initiator of our actions.

**self-concept:** The mental appraisal a person has of his own personal strengths and weaknesses in the dimensions of development. A person will typically have both a self-appraisal (and associated self-concept) for each dimension and an overall concept of self as a fully functioning person.
**soul function**: An hypothesized internal mechanism that operates spontaneously in consciousness to determine what life focus or task consciousness will be attended to at any time, what part of the ODND that attention will engage and at what level of sophistication the enacting schema will be performed. It is called the soul function in CSHDE, rather than the soul, to indicate that it performs three of the functions commonly attributed to the soul as religiously conceived, but without attributing to it an eternal life. Working together, these three functions define what is in common language described as “what a person really is”.

**TE**: topic elaboration.

**teaching (aka instructing)**: Any deliberate attempt to bring about designated learning outcomes. CSHDE recognizes a hierarchy of four levels of increasingly intensive engagement of the learner: (i) providing opportunities for the desired learning to occur; (ii) reinforcing spontaneously occurring increments in the performance of an intended learning outcome; (iii) modelling performance that is higher on the growth scheme for an intended learning outcome than the learner’s present level; (iv) stimulating the learner to self-augment existing mental structures and models by presenting information that he cannot assimilate with existing structures (aka interactive or constructivist teaching).

**the best that can be got from life**: The life that results from employing the most effective strategies of diverse cultures for engaging the common life tasks. This is an ideal that requires an exhaustive series of cultural integrations.

**wellness**: The sense that we are healthy in the broad definition of health.

**working together**: Acting within a shared task schema to produce an agreed-upon desired result—usually within a defined time interval.
CONTRIBUTORS TO CSHDE

INDIVIDUALS WHO, TO a memorable degree, helped develop, improve, test in their own practice, influence/assist others to use, advocate, or support the use of CSHDE concepts and strategies. The dates cited are the authors’ recollections of the period of time in which these individuals were most intensely involved with CSHDE-supporting projects and the professional status cited was that held at or before that period.

The Human Development And Empowerment Group

This was an interagency group (2000-2010) of four individuals who, building on their collaborative work in a funded early learning project, published a first version of CSHDE under the title Fostering Human Development and Empowerment: A Conceptual Bridge Between Vision and Action.

Dr. Floyd Robinson’s (1968–present) early professional career was in promoting educational research in Canada, first as Research Director of the Canadian Teachers’ Federation, then as Director of the Canadian Council for Research in Education. He has been part of the CSHDE thrust since its inception in the late 1960s when he was the founding chairman and professor of the Department of Applied Psychology at the Ontario Institute for Studies in Education. Over the decades he has worked in field settings with graduate students and practitioners in education and other social agencies on programs intended to foster human development and empowerment.

In 1983 he received the Colonel Watson Award from the Ontario Association for Curriculum Development for “the extensive influence he has had on other academics, curriculum innovators, Ministry of Education personnel, classroom teachers and most significantly, the students in the classroom”.

375
Wayne Croxall (1978–present) has been an elementary school principal, program coordinator for a district school board, Faculty of Education instructor and a learning program consultant for community agencies concerned with the health and development of children. His innovative curriculum work challenged learning expectations across a broad age range. The language, numeracy and causal reasoning skills of preschool children were accelerated in Early Years Centre projects. Junior division students were successfully taught the inquiry strategies involved in doing important life tasks better. In a sexual health program co-designed with nurses, adolescents’ movement on a continuum of sexual intimacy was to be regulated by their ongoing appraisal of the partner as a human being. And in an experimental off-campus pilot study of teacher training, in which the typical theory-to-practice training model was reversed (practice-to-theory-to-practice), graduates were judged by seasoned teachers to be significantly more capable in responding to instructional challenges.

Pauline Kenny (2000–2010) has been a public health nurse, public health director and chief nursing officer in a district health unit. She was project leader in an interagency collaboration for the re-conceptualization of the sexual health, prenatal, Healthy Babies/Healthy Children and Parenting programs in her department—rethinking them as the cumulative acquisition of strategies for promoting health and development within human relationships.

Delores Klingspon (1990–2010) has been a volunteer and officer in several community organizations devoted to individual and social development, where she was successful in promoting the optimal development mission and supporting concepts and strategies. Her work in Big Sisters led to the development and
validation of the Expanded Nurturance Matrix, and reflects her concern with the adequate treatment of spirituality in CSHDE.

**Long-Term Associates Of The CSHDE Thrust**

**Herb Augustine** (1976–2005) had an M.A. in geography and was a distinguished and influential Ontario geography consultant whose association with the CSHDE thrust commenced shortly after the establishment of OISE Northeastern Centre and continued long after his retirement. He was particularly interested in applying inquiry skills (especially correlation, decision making and concept clarification) in geography courses, was the prime mover in getting the Interdisciplinary Skills List into three Ministry guidelines, and was an invaluable source of advance notice of likely impending Ministry actions that could have implications for CSHDE work.

**Dr. Carolynn Bennett** (1972–1995) was actively involved with CSHDE from the establishment of OISE Northeastern Centre in North Bay in 1972 until her retirement in 1995, and during that time advanced up the professional hierarchy from language teacher, language consultant, faculty of education instructor, Ed.D. recipient, associate professor, and Associate Dean of Education. Her senior elementary division language teaching was judged by the Ministry of Education to be the top language program in the northeastern region on both occasions that this designation was made. She was particularly noted within CSHDE for her designation of “frames” (precursors to schemas), MEP (Model for Educational Processes) and the humanistic elements of her classroom.

**Dr. David Brison** (1968–1972) was the past chair of OISE’s Department of Applied Psychology and head of OISE’s Niagara Centre. Dave supported the development of the Inquiry
Program, acted as one of its three initial teachers (McKay Public School) and used its strategies in his innovative community involvement program for secondary school students.

**Evelyn Brown** (1975–1990) was actively involved with CSHDE as she moved successively from classroom teacher, to elementary school principal, to secondary school principal, to curriculum superintendent to mega school board director. Widely involved with community improvement projects, she was an influential supporter and facilitator of CSHDE projects, three of the most important being the teaching of inquiry skills, the validation of MEP and its use in the conceptualization, design and implementation of a novel off-campus teacher training program.

**Doug Gruber** (1974–1990) had an M.A. in history and was a secondary school history teacher in Muskoka when he enrolled in CSHDE-based M.Ed. courses. He became the board history consultant and in that role promoted the use of CSHDE inquiry skills, as he did later as a Ministry curriculum consultant. Doug was a capable writer and analyst and could be relied on for insightful analysis of CSHDE documents.

**Dr. Hank Hedges** (1968–1995) was widely thought to have transformed Canadian elementary science education into a learning-by-inquiry process. He developed a widely used science book series, was the largest science contributor to the National Film Board, and was a master and dean at the Hamilton Teachers College. He had great teaching instincts and skills, and an intuitive sense of curriculum design (especially Topic Elaboration) that contributed greatly to CSHDE’s curriculum design strategies.
John MacBean* (1968–1980) was a senior elementary science teacher and consultant. Initially sceptical about the intervention of academics into school programs, he witnessed an age-surpassing demonstration of causal thinking by inquiry-trained grade six students, and became a strong supporter and user of CSHDE for the remainder of his career. He helped use its concepts and strategies to develop a junior division environmental studies program, and a series of intermediate science textbooks.

Dr. Nancy Maynes (1990–1995) was an elementary school teacher in St. Catharines who was encouraged by Floyd White to engage with the CSHDE concepts and strategies that he was working with as a board curriculum superintendent. She became a board curriculum officer, earned an Ed.D., and was the major force in incorporating CSHDE inquiry skills in an inter-board intermediate history guideline project. Nancy was an instructor in Ministry principal training programs, and used Topic Elaboration as the skill organizer for her social studies teaching programs.

Terry Millard* (1974–1984) was a senior elementary teacher and vice-principal when he made contact with the CSHDE group, and became especially skilled in applying its model for causal reasoning to his science classes, and its strategy for correlational analysis to geography. He later, and now a principal, did influential consulting and in-service work with his school board, including a three-year, integrated problem solving program for the senior elementary grades, and was an informed critic of Ministry elementary science documents.

Dr. John Miller (1990–2000) was an OISE curriculum theorist whose interaction with the CSHDE thrust broadened its perspective beyond its predominantly “transactional”
Bill O’Hallarn (1975–2000) was a history teacher and department head who employed CSHDE strategies in his curriculum work with his secondary school, the Ministry of Education, and the Ontario Secondary School Teachers Federation. He was very active in constructing history concept nets, the conceptual framework for a new intermediate history and contemporary studies program, and the first CSHDE nurturance scheme.

Dr. Len Popp* (1968–1980) was the designer of the Basic Thinking Skills program, and an influential advocate and disseminator of the original CSHDE inquiry model. He was a co-developer (with Hedges and Robinson) and graduate course instructor in the first CSHDE curriculum development system, called ICPOGMU (Image of Learner/Category System/Priorities/Organizers/Goal Setting/Methodology/Unit Development).

Dr. Tom Puk (1985–1990) had a background of working with troubled and disadvantaged youth. He took rapidly to, and pushed the expansion of, CSHDE concepts and strategies and taught them in M.Ed. courses. He was noted for being able to get intellectually disadvantaged learners to perform far above their assessed potential.

Howard Russell* (1965–1990) was the research director for a major Ontario school board before he was recruited to head the Field Services department in the newly-formed OISE. He
Lucy Robinson (1968–present) was an early proponent of early intellectual stimulation, and in pilot studies was successful in developing numeracy, logical reasoning (cross-classification), causal reasoning and early reading skills before children’s fourth birthdays at levels not achieved in school until twice that age. She invented interactive parent/child games that fostered thinking in a play context—an early form of what later came to be known as “play-based problem solving learning”. When these educational stimulation techniques were brought into her parent-assisted preschool, the results led to its being named the northeastern region’s entry in a provincial competition for excellence in preschool programs.

Dr. John Ross (1980–1990) was a co-author (with Robinson and White) of *Curriculum Development for Effective Instruction* and taught graduate courses on the curriculum design system it described. He did research that successfully demonstrated the system’s power in teaching problem solving, in particular decision-making and correlational thinking, and he published the results in academic journals and professional writing—*Teaching Problem Solving* being a well-known example of the latter.

Dave Story (1972–1975) was a Ministry of Education science consultant, an early collaborator in CSHDE projects, a demonstrator of how to teach causal reasoning to senior elementary students (*Teaching A Model For Experiments*) and
of a scheme for enhancing teacher skill in developing growth schemes for measurement skills.

**John Tickle** (1968–1972) was the curriculum superintendent for the Niagara South Board of Education. He asked for assistance from OISE Niagara Centre in helping teachers nurture inquiry skills, then participated in the development and pilot testing of the Inquiry Training Program. He wrote the first OISE-supporting public (*The Globe and Mail*) letter from a senior Ontario education official. Once convinced by argument of the potential of an idea for educational improvement, he secured the opportunity to try it out in classrooms within hours, giving Niagara staff a huge development advantage over academics in Ontario’s major cities.

**Dr. Floyd White** (1972–1990) was the principal of an intermediate division school who worked with OISE staff to develop an inquiry program for his school. He attended and contributed to CSHDE-based M.Ed. programs (although he already had an OISE M.Ed.) then acted as mentor to other principals in curriculum design, and later became an instructor in CSHDE curriculum design M.Ed. courses. Floyd became a curriculum superintendent in southern Ontario, earned an Ed.D. and in the last stage of his career worked to bring about educational change through his political connections (especially with Mike Harris). Floyd has to be considered one of the major supports for CSHDE.

**Halia Zamkow** (1974–1984) coordinated the Thinking Materials Resource Centre at OISE Niagara Centre in St. Catharines, the official disseminator for CSHDE and other curriculum materials intended to stimulate thinking. Halia
designed and successfully taught a strategy for enabling junior division students to identify present affect levels and manipulatable factors that can raise them and intentionally raise the affect levels of themselves and others.

**Janet Zimbalatti** (1980–2010) was an elementary school teacher with language arts teaching expertise, then a board language arts consultant. She was frequently involved in CSHDE projects over the years, her most ambitious being the Language Ladders project—in which Janet worked with a regional group of early years educators and librarians to develop a detailed growth scheme for early language skills.

**Other Memorable Contributors**


* Deceased

The authors are grateful for the valuable input they have received from the many contributors to the CSHDE thrust and acknowledge their responsibility for the conclusions and speculations drawn from this input.
“We will advance society or make the world a better place to the extent that individuals achieve their potential as human beings.”

Human communities increasingly envisage themselves as agencies and individuals working together to foster the optimal development of all citizens. But all too often those are just lofty declarations, without impact on actual practice. The ideas in this book, the product of more than a half-century of sustained professional effort in achieving human growth, are fundamental to realizing that mission. Receiving enthusiastic and sustained support from practitioners that have witnessed the application of many of its concepts, this blueprint for human development lays out the foundations of a strategy for empowering human communities and their members to become the best that human beings can be.

For parents, teachers, social workers and every person who wants to contribute to the fullest possible development of others.