

## **Integrative, Holistic Wisdom-Based Futures Education**

**Thomas Lombardo, Ph.D.  
Center for Future Consciousness**

*“Education spends much more time  
teaching the past than teaching the future.”  
Mihalyi Csikszentmihalyi*

### **Introduction**

Futures education provides the ideal framework for providing college students with a high quality integrative and holistic education. In this paper, I describe the evolution and structure of such a futures-focused educational program. Many lines of thought and diverse themes—a result of work I have done within the *Center for Future Consciousness*—have contributed to the development of this program. I highlight some of its key features, including the multi-faceted enhancement of future consciousness; the development of character virtues and wisdom; inter-disciplinary and psychologically holistic education; deep learning and higher cognitive skills; and sustainability and environmental ethics. Further, I describe general grading criteria, assignments, and the student-teacher learning community within this program. The overall thrust of the program is two-fold: to enhance the quality, depth, and breadth of the student’s mind, and to facilitate the development of individuals who can contribute to the betterment of human society in the future.

### **History: A Quality Educational Program**

My starting point is to describe the original *PASS* Program that I helped to develop at Rio Salado College in Tempe, Arizona. From 1992 through 1999 I was faculty coordinator for the program. The futures-focused, wisdom-based program I will later describe in this paper was originally inspired by the *PASS* Program.

The *PASS* program was a two-year liberal arts curriculum leading to an associates degree; it served as a general educational foundation for whatever specific major students wished to pursue in the latter two years of their baccalaureate college education. During the mandatory one-day long New Student Orientation, I described the program as offering a high quality educational experience that would teach knowledge, skills, and attitudes critical for success in college and in life, both professionally and personally. I listed a variety of reasons why the program possessed superlative educational quality.

To begin, the program included a set of courses that taught specifically to the issue of student success. Aside from the orientation as a starting point to provide students with the big picture of what they were getting into, the

curriculum included: a beginning course on activated learning to explain the principles and practices of successful learning; a course on stress management to handle the emotional challenges and time management issues college students encounter; and toward the middle of the program, a course on personal and social development that addressed the student's own psychological and social well-being, as a necessary part of any solid college education. Through all these courses, as well as others, we were approaching education holistically; we were addressing all the psychological dimensions of student development, from cognitive skills to emotional and personal qualities.

A second main feature of *PASS* that supported quality education was that the entire curriculum was laid out in a set sequence of study and organized around six over-arching educational goals. Each and every course specifically identified which educational goals it was addressing in its instruction and assignments. Further, each of the six goals had a manageable set of measurable objectives, again to align with instruction and assessments. Hence, the entire program was integrated from the top down: Learning goals and objectives were clearly identified, systematically taught in courses, and systematically assessed.

Additionally, the program was further integrated by pairing courses; students took two courses at a time and the assignments pulled together information and skills from both courses; we combined and integrated assignments for each pair of courses. Hence, students did not receive the smorgasbord of courses typically offered in college.

Further, faculty across the disciplines worked together to provide a coherent and comprehensive educational experience for students. It was the teaching faculty who identified the six educational goals and articulated the subsidiary learning objectives for each goal. It was the faculty who wrote the courses and identified the appropriate assignments in each course that would assess program educational goals and objectives.

The six goals decided upon by faculty were intended to be holistic and comprehensive, providing a solid foundation for any further studies:

- Communication skills (Including composition)
- Independent learning skills
- Information literacy and acquisition
- Higher order cognitive skills
- Interpersonal skills and social awareness
- Self-development

Additionally, students began their program of study as part of a cohort and worked together through the two-year period, providing each other personal support for the challenges that they faced. Bringing faculty together to work on the program and bringing students together to provide for interpersonal support created the foundation for a strong student-teacher learning community. We were standing in opposition to the typical fragmented and socially isolated college environment, where teachers do not know each other very well and students

pursue relatively solitary pathways of education. Again, in the spirit of integration we worked toward the creation of a learning community.

Next, again in the spirit of educational integration, as well as further student development, we established a self-reflective portfolio that students were required to maintain and develop through their two years of study. As research has demonstrated, active and self-reflective students learn better than passive students. The portfolio required that students regularly assess their progress through the program, placing key sample assignments (one from each course) in the portfolio, along with structured personal commentary and review of their performance.

But where, one might ask, is the dimension of futures education in all of this? To begin with the personal futures dimension was included in the three holistic education courses (Activated Learning, Stress Management, and Personal-Social Development). In these courses, students were required to assess their personal strengths and interests; to identify areas in need of improvement and work on them; and to consider what professional and career goals were most appropriate for them to pursue in their future. In essence, between the orientation and these courses we provoked students to start thinking about and realistically planning out their future right from the beginning of the program.

Further, as a final effort to realize educational integration within *PASS*, the last course in the program—an inter-disciplinary capstone course to be paired with introduction to philosophy (clearly an integrative course)—was created. It was my decision to make this course a general introduction to the study of the future (Lombardo, 2006a). In my mind, the future was the ideal vehicle for pulling together all the dimensions of the human condition and all the individual topics studied in the program. The future is a scientific-technological-environmental-psychological-social-cultural-spiritual reality. In the futures course we could cover all the main topical areas of study in the program and repeatedly consider how each dimension of human reality would interact with and influence every other dimension. Further, I quickly came to realize that the future was both a highly practical and consciousness-expanding topic; it was both abstract and personal. Having already considered career and personal development in earlier courses, students were now asked to consider the big picture of the future, and in fact, through assignments in the futures course, to connect their personal future plans with general trends and possibilities for the future at large.

In creating the futures course, it became apparent that the areas of study in the philosophy and futures courses could be aligned together, lesson by lesson, providing dual perspectives on each successive topic covered. In essence, students were asked to think philosophically about the future and to think futuristically about the grand themes of philosophy. In the table below, I outline the topical pairings in the futures and philosophy courses:

<b>Philosophy</b>	<b>Futures Course</b>
Nature of Philosophy	The Study of the Future
Reality & Metaphysics I	History, Evolution, & Change
Reality & Metaphysics II	Theories of the Future
Epistemology	Information Age, Computers & Future of Education
Philosophy of Science	Future of Science & Technology
Philosophy of Life - Environmental Ethics	Biotechnology & the Environment
Social-Political Philosophy	Global & Social Futures
Ethics	Future of Morality & Values
Freedom & Determinism	Global Diversity
Feminist Philosophy	The Future of Women, Men, Family, & Love
Mind, Self, & Consciousness	Future of Human Psychology
The Existence of God	Future of Religion & Spirituality
The Meaning of Life	The Future of Art & Culture

### **Integrative Futures Education and its Value**

As I noted above, the traditional college education is fragmented. Students are presented with content and skills to be learned in individual courses without any significant or systematic effort being made to pull together the content and skills into a coherent whole. By and large, disciplinary departments and teachers are relatively in the dark regarding what other departments and teachers are doing; often, in fact, teachers within a department are not that knowledgeable about their colleagues' course content and approaches. Yet as E.O. Wilson (1998a, 1998b) and a plethora of other educators argue, all of the contemporary challenges facing humanity today are inter-disciplinary in nature, requiring integrative thinking and problem solving. Integrative inter-disciplinary education prepares students for the "real world" of the future.

Further, in spite of various efforts at colleges to articulate general arts and sciences requirements for students that identify minimal coursework across the different general areas of study—such as science, math, composition and communication, arts and humanities, history, and the social and behavioral science—a typical arts and sciences education is sketchy rather than comprehensive in scope. Students are not required to sample the full breadth of human knowledge and fundamental disciplines; for example, students with bachelor degrees may never take a course in economics, world history, psychology, or philosophy.

The program outlined above, especially with the inclusion of the futures integrative course at the end, rectifies this deficiency in breadth within traditional liberal arts education. The futures course, as can be seen above, covers all of the major dimensions of the human condition and draws in, at the very least, rudimentary reviews of all major academic disciplines. Further, because human life (now and in the future) is an interactive effect and blending of all spheres into complex realities, students are motivated to think about the myriad real-life relationships that exist among technology, science, medicine, mental health, the environment, politics, and economics, etc. Again, the future is the ideal format for integrative and comprehensive education.

At a psychological level, the program—and the futures course in particular—provided many fundamental benefits. First, it addressed and assessed all of the basic cognitive processes including integrative memory, imagination, intuition, creativity, logic, critical thinking and problem solving. As noted above, the futures course expanded consciousness, engaging students in possibility thinking, and drew them into personal and practical questions and challenges about their own futures. Second, the personal development and activated learning courses generated holistic personal growth. Traditional liberal arts programs tend to focus on cognitive skills and content. Our program was psychologically holistic; in fact, it approached future consciousness holistically as well. The program addressed hope, optimism, self-empowerment, motivation, fear of success, and self-image, all critically important holistic variables in the future success and happiness of individuals. Third, as noted above, the futures course pushed students into considering the connection between the personal and the global: How can they flourish and succeed in the context of anticipated future developments in the world? This was a question we repeatedly asked them.

### **Holistic Education and its Value**

As the neurophysiologist Antonio Damasio (1999) argues, consciousness at its core is feeling as opposed to cognition. Hence, it is more appropriate to state “I feel therefore I am” than “I think therefore I am” as the core conscious state of self-identity. As a teacher of the future, I have often said to my students that the future is felt as much as it is thought or imagined. Hope and fear, as primordial future-oriented emotions, lie at the core of future consciousness (Lombardo, 2006a, 2006b, 2006d, 2007b).

In addressing personal awareness and development within the integrative program, we ensured an equal balance between the cognitive and the emotional-motivational in our personal development courses. In fact, in the activated learning course students were introduced to the fundamental parameters of human psychology and they were taught both theoretical basics and applications of knowledge as they applied to becoming successful students. We divided the psychological domain into five areas: brain, cognition (including memory and learning), motivation-emotion, the environment (including the social sphere), and self-identity (self-awareness and self-assessment). We taught them the psychological basics for each of these areas. Adding to the richness of this psychological picture, we also introduced students to Howard Gardner's theory of multiple intelligences so they would get a sense of the varied ways in which people learn and understand the world (Gardner, 1983). We even created assignments that would test student performance along many of Gardner's modes of intelligence, such as "picture smart," "word smart," and "self smart." Our basic premise behind this overall holistic strategy was that knowledge is power, and if students understood how their minds worked and the conditions which supported or inhibited learning, creativity, motivation, and problem solving, they could apply such knowledge to their own personal and academic development.

Bringing the future back into the discussion, it is the whole person who will succeed or fail in the future. Fear and apathy will kill you as much as lack of imagination and good thinking skills. (In fact, the two pairs of variables are correlated.) Developing the whole person—all the fundamental facets of the mind—is critical to enhancing the full psychological richness of future consciousness.

### **Virtues of Higher Education: Teaching Ethics as the Key to Success**

For a variety of reasons, the *PASS* program was discontinued in 1999, but I was pedagogically inspired by it, and I continued to work on developing different dimensions and themes first articulated in the program. One issue that became increasingly important to me in the late 1990s was the critical significance of academic virtues. As department chair overseeing psychology, philosophy, religion, and futures courses at my college, I became aware of the pervasive problems of plagiarization, cheating, dishonesty, lack of accountability, and numerous other ethical problems connected with student performance and student motivation.

Inspired by discussions with my department faculty, I created an academic ethics workshop for both students and teachers at my school, and a shorter learning module that was included in all of the courses within my discipline departments. I came to the conclusion that the development of a set of key academic virtues was critical to student success; that is, critical to their future. The lack of ethics was not simply a problem pertinent to those students caught cheating or being dishonest; ethics was tied to all facets of overall student success. I developed and have continued to evolve a list of key academic virtues (with definitions, instructional material, and learning activities) that I believe are

critical to student success, in fact, both personal and professional success (Lombardo, 2008a). The present list is:

- The pursuit of excellence
- Self-responsibility and accountability
- Love of learning and knowledge—curiosity and wonder
- Love of thinking
- Truth, honesty, integrity, and authenticity
- Self-awareness and understanding
- Humility and open-mindedness
- Discipline and determination
- Justice and fairness
- Holism and balance
- Hope and optimism
- Mutual respect, social conscience and responsibility
- Courage
- Wisdom (The application of knowledge and ethics to life)

Identifying and facilitating the development of academic character virtues in students is part of a holistic approach to education. My plans to recreate an integrative educational program in the future include—right at the beginning—a thorough treatment of academic character virtues with learning activities which will reinforce their importance.

### **The Psychology and Virtues of Future Consciousness**

A couple of years after first developing the academic ethics workshop, I also came to the conclusion that character virtues played a crucial role in the enhancement of future consciousness. Around 2002 I began discussing with my futurist colleague, Jonathon Richter from the University of Montana, the general theme of problems and challenges in contemporary society and education, raising the question of what strategies would constructively address such challenges and problems. We hypothesized that the enhancement of future consciousness would have a positive impact on solving or lessening many of our key social and systemic problems. But further, inspired by the recent work of the psychologist Martin Seligman (1998, 2002), we proposed that if one looks at future consciousness holistically, then enhancing future consciousness involves the cultivation of a set of key character virtues (Lombardo and Richter, 2004).

In subsequent years, this virtue-focused approach to enhancing future consciousness became the core theme of workshops I presented at World Future Society conferences, as well as other venues and locations (Lombardo, 2006d, 2007a, 2007b, 2007c, 2009a). The most recent list of key virtues I have identified includes:

- Self-efficacy and self-responsibility
- Discipline and commitment

- Courage
- Hope and optimism
- Love, passion, and flow
- Transcendence
- Psychological balance
- Wisdom

As I noted earlier, future consciousness possesses an emotional dimension. Future consciousness, as I have come to define it, is “the total integrative set of psychological abilities, processes, and experiences humans use in understanding and dealing with the future” (Lombardo, 2006a). As I have progressively worked out the psychology of future consciousness over the last ten years, the above character virtues provided me with those standards of excellence in psychological functioning regarding the future. Consequently, as I have expanded upon my initial design of the introductory course on the future (first laid out in the PASS Program), I have enriched the design with a much more solid grounding, at the beginning of the course, on the psychology and character virtue dimension of future consciousness (Lombardo, 2007d, 2009a, 2010a).

### **Wisdom and Deep Learning**

Readers will note that the last item on the above list of virtues of heightened future consciousness is wisdom. My next important step in the further development of a model of integrative futures education was to incorporate the central importance of wisdom. I came to the conclusion that wisdom is both the central ideal of higher education and the highest expression of future consciousness. Wisdom should be at the heart of an integrative and holistic future-focused educational program.

In the fall semester of 2004, the academic dean of my school presented me with a challenge that would underscore the importance I placed on wisdom: How do we assess deep learning in students? Researching the existing literature on deep learning, I was able to create a systematic picture of the nature of deep learning and how it differed from superficial, rote memorization learning (Bransford, Brown, and Cocking, 2000). Below is the table I created contrasting deep learning with surface learning.

<b>Deep Learning</b>	<b>Surface Learning</b>
Synthesized Big Picture	Fragmented Pieces—“Trivial Pursuit”
Penetrates Core Values and Beliefs— Conceptual Reorganization	Sits on the Surface of the Mind— Nothing Changes
Transfers to New Situations	No Transference

<b>Deep Learning</b>	<b>Surface Learning</b>
Application Value	No Application Value
Entails Thinking in Learning	Learning is Memorization without Thinking
Self-Reflection and Meta-Cognition	Lack of Self-Reflection and Self-Assessment
Intrinsic Positive Motivation and Affect	Extrinsic Negative Motivation and Negative Affect
Active	Passive

In pondering this set of contrasts between deep and surface learning, I noted that the set of characteristics of deep learning aligned very well with features of wisdom as identified within research on the nature of wisdom (Sternberg, 1990, 2005; Macdonald, 1996, 2004; Maxwell, 2007). Reviewing various new publications on the study of wisdom—a great number of which can be accessed on Copthorne Macdonald’s website *The Wisdom Page*—I realized that a “contemporary renaissance” was occurring in this area and that deep learning could be seen as a necessary step toward the development of wisdom. Further, I realized that the qualities of wisdom—which subsumed many character virtues, such as optimism, courage, and self-responsibility—captured much of my thinking on heightened future consciousness. Based on my readings, I created a definition of wisdom which I have evolved further in the years since. My present definition of wisdom is:

“Wisdom is the highest expression of self-development and future consciousness. It is the continually evolving understanding of and fascination with the big picture of life, of what is important, ethical, and meaningful, and the desire and creative capacity to apply this understanding to enhance the well being of life, both for oneself and others.”

I wrote a paper and put together a workshop on wisdom and education (Lombardo, 2006c) which I presented to my department faculty. Working together with them, I totally revamped all the assignments in our courses to assess types of skills and knowledge reflective of deep learning and the development of wisdom. We created a new set of grading criteria as well, and beginning in 2007, started collecting and monitoring data on student performance based on these new grading criteria.

In the concept of wisdom I found a unifying and philosophically inspiring concept to bring together enhanced future consciousness, academic character virtues, integrative education, and holistic psychological development. Wisdom is

integrative and broad-based knowledge. It is psychologically holistic, involving cognitive, emotional, motivational, and ethical personal traits and capacities—wisdom impacts the entire personal identity. Wisdom is practical or applied knowledge and looks toward the future, within a cognitively, motivationally, and ethically heightened mindset. And the exercise of wisdom unequivocally improves the quality of life (present and future) for both individuals and society as a whole (Lombardo, 2009b, 2010b, 2010c, 2011b).

If education should facilitate the development of traits in individuals that will help them to constructively and intelligently deal with the challenges of life, then wisdom should be at the heart of education. And if, wisdom is the highest expression of future consciousness, then future education should pivot on the cultivation of wisdom. A corollary in this line of reasoning is that the ideal educational program should be future-focused in so far as it centers on the cultivation of wisdom. Further, since such an ideal program focuses on wisdom, it will necessarily be integrative (bringing in the big picture) and holistic (educating the total person).

### **Future-Focused Integrative and Holistic Educational Goals**

Pulling these lines of thought together over the last two years, I formulated a central over-arching goal for an ideal future-focused, wisdom-based integrative and holistic educational program:

“The development of students who possess a broad and integrated future-focused knowledge base and who can ethically apply their knowledge for the betterment of themselves, their community, and humanity as a whole.”

Further, in dialogue with several faculty at Rio Salado College, I articulated a new and improved set of integrative educational goals (building on the original *PASS* list) that covers the comprehensive content of the educational program highlighting the concepts of wisdom, heightened future consciousness, and ethical character development:

- Future consciousness (personal and general)
- Personal and ethical character development
- Higher cognitive capacities (deep learning, critical thinking, creativity, and multiple modes of understanding)
- Communication, interpersonal skills, and composition
- Historical consciousness
- Global and cultural consciousness and social conscience
- Ecological and environmental consciousness
- Science and technological awareness
- Information literacy and computer technology proficiency and awareness

Based on these general educational goals, I identified a core curriculum which addresses all of the basic arts and sciences requirements at a typical college or university and provides an associates degree foundation (60 credit

hours) upon which to build a bachelor's degree major in the third and fourth years of a college education:

- Composition (6 credit hours)
- Communication (3 credit hours)
- Sciences and labs (Biological and Physical) (8 credit hours)
- Environmental Ethics (3 credit hours)
- World History and Modern History (Including global and cultural awareness and the history of religion) (6 credit hours)
- Basic Math (3 credit hours)
- Introductory courses in Sociology, Psychology, Philosophy, and Humanities/Arts (12 credit hours)
- Introductory Economics and Business (3 credit hours)
- Personal Development and Principles of College Success—academic character virtues (3 credit hours)
- Futures courses: Introduction (Future studies, history of future consciousness, enhancing personal future consciousness and science fiction) and Advanced (integrative, comprehensive, global themes) ( 6 credit hours)
- Career Development (personal future) (3 credit hours)
- Computer and Information Technology Literacy and lab (4 credit hours)

Courses are offered in a set sequence and paired together (as described earlier) with integrative assignments. Later courses often build upon earlier courses; futures education is distributed throughout the program in various courses; and the program culminates in two highly integrative courses. Suggested time parameters would be roughly nine weeks per pair of courses, with one- or two-week breaks between each set of pairs.

- Set One (Personal Development and Composition I)
- Set Two (Computer and Information Technology and Composition II)
- Set Three (Communication and Introduction to the Future)
- Set Four (Physical Science and Basic Math)
- Set Five (World History and Humanities/Arts)
- Set Six (Biological Science and Environmental Ethics)
- Set Seven (Psychology and Sociology)
- Set Eight (Modern History and Economics/Business)
- Set Nine (Advanced Futures and Philosophy)
- Career Development

### **Future Consciousness and Character Development**

Highlighting some of the key features of the program, two specific courses focus on character virtues and overall personal development. The first course, "Personal Development," is foundational and offered right at the start. This course covers principles and techniques of college success; stress and time management; principles of activated learning (learning about learning); academic

ethics and educational virtues (this module follows the academic ethics workshop I developed); and self-assessment, an element which requires students to write a personal narrative of their past to help them gain a coherent sense of how they see themselves and where they might be heading in the future (Lombardo, 2008b).

This course is self-reflective but also personally future-focused in various ways. It is clearly psychologically holistic and, in particular, emphasizes the central importance of ethical character development in college; personal and professional success; and psychological well-being in the future.

The second course to focus on character virtues, "Career Development", is the final course in the program. In this course, after going through all the substantive, content-based coursework, the students come back to their personal and professional futures, exploring potential careers and writing an ideal future self-narrative. Here students are asked to incorporate key character virtues, providing value and ethical direction for their lives. This also helps students find focus as they move forward in their lives. Selections from Verne Wheelwright's (2010) book on personal futures will be used throughout both these courses, as well as within the first futures course described below.

As mentioned, the Personal Development course brings the topic of the future into the curriculum right at the beginning of the program, but two other courses are specifically identified as future focused in content. The first futures course, offered in the second set, covers the psychology and value of future consciousness; the key virtues supporting enhanced future consciousness; the history and evolution of future consciousness; contemporary theories of the future; future studies as a discipline and methodology for thoughtfully exploring the future; and science fiction as a form of literature for imagining alternative futures. Besides Wheelwright's book, reading material for this course includes selections from my two books on future consciousness which cover all of the above topics (Lombardo, 2006a, 2006b).

This first futures course is both personal and general in its focus; explores multiple modes of understanding or imagining the future; provides a consciousness-expanding (historical) view of futures thinking; and introduces students to multiple theories about the future, bringing in opportunities for comparative evaluation (a key feature of critical thinking).

The second course on the future comes at the end of the program, providing a comprehensive, global, and even cosmic overview of the diverse areas of concern regarding the future. After having studied the content of various academic disciplines that focus on different features of nature and the human condition, the students are asked to thoughtfully consider the future possibilities for each of these areas and the possible interactions among them. Aside from additional chapters in *Contemporary Futurist Thought* (Lombardo, 2006b), reading material in this course includes selections from Ed Cornish's *Futuring* (2004), Wendell Bell's *Foundations of Future Studies* (1997), and the Millennium Project *State of the Future* (Glenn, Gordon, and Florescu, 2010). Again this course is paired with introductory philosophy to give the course intellectual depth.

I should also note that the topic of the future is not slighted throughout the middle portion of the course sequence. Both environmental ethics—offered in the sixth set, and modern history—offered in the eighth set, deal with important dimensions of the future. The environmental ethics course covers all those issues pertinent to the future of the environment (species diversity, forests, land, animal habitats) and the interactions of society and the environment (resources, food, climate, water); it is, in fact, a great course for introducing students to many of the challenges and issues of the future covered in the integrative futures course covered later. The modern history course, among other things, highlights contemporary trends and developments within human society, a clear and obvious essential foundation for thinking about the future.

As one final concluding point regarding the above courses on the future and personal development, these courses, as well as all other courses in the program, will include instruction, learning activities and assignments reflective of the overarching goal of the program—the development of wisdom—and the subsidiary educational goals, hence bringing integrative coherence to the entire program.

### **Cognition, Ethics, and Expansive Consciousness**

Although the course curriculum is psychologically holistic in scope, addressing human motivation, self-identity, and ethics as well as intellectual and cognitive dimensions, higher cognitive skills are included as a general educational goal. Several other goals highlight different dimensions of expansive consciousness, that is, a broad understanding of global, ecological, and historical realities. Clearly the program emphasizes the importance of intellectual breadth and mental capabilities.

Indeed, a key feature of wisdom is the application of a broad and deep understanding of reality (expansive consciousness) to the problems and challenges of life. Further, in my work on deep learning and wisdom, one important insight was that deep learning requires skillful thinking as described in the principles of critical thinking, and further, that wisdom, aside from having a solid foundation in content knowledge, involves highly developed thinking and problem-solving skills. Wise people are skillful thinkers.

In my work as department chair, as well as my work on the essentials of futures education, I progressively articulated a list of higher cognitive skills that college students need to develop. This list, in fact, provides a set of specific learning objectives to be assessed under the general goal of higher cognitive skills, as well as the basis for grading criteria relevant to deep learning. This list is:

- Deep learning
- Critical and reflective thinking
- Multiple modes of understanding (logic and insight/intuition)
- Synthetic and integrative knowledge and thinking
- Creativity

- Imagination
- Prediction and foresight
- Planning and goal setting
- Problem solving
- Decision making
- Wisdom—Synthetic ethical thinking about preferable futures

Critical thinking is operationally defined using Richard Paul's set of standards of critical thinking, as well as his identified virtues of critical thinking (developed together with Linda Elder) (Paul, 1993; Paul and Elder, 2006). Reflective thinking is operationally defined based on the research of King and Kitchener (Kitchener and Brenner, 1990; King and Kitchener, 1994). The category "multiple modes of understanding" addresses global and personal differences in thinking styles and approaches, reflecting the research and writings of Richard Nisbett, Leonard Shlain, Howard Gardner, and others, in their attempts to map out the broad, diverse, and multi-faceted modes of human understanding (Gardner, 1983, 1999, 2008; Nisbett, 2003; Shlain, 1998). These various components of higher cognitive skills are addressed throughout all of the courses in the curriculum.

There are different dimensions to expansive consciousness. I use the expression "expansive consciousness" to refer to awareness and understanding of the breadth of existence, in either space or time, in contrast with narrow consciousness which would be limited to the relative "here and now." First, there is expansive temporal consciousness, involving an understanding of history, deep time, and both social and natural evolution; expansive temporal consciousness not only reaches into the past but extends into the possibilities of the future. Second, there is expansive spatial consciousness, including global awareness, ecological awareness, and even cosmic awareness. This dimension involves being able to see the "big picture" of things and being able to see the interconnections between different spheres of existence and the human condition. Pulling all of this together, consciousness is expanded through history courses, futures courses, global studies, and courses on ecology and the environment. Again, wisdom requires a big picture understanding of reality, and hence, the program contains several educational goals that address the dimension of expansive consciousness embodied within wisdom.

The environmental ethics course, which I developed in 2009, synthesizes expansive consciousness with ethics and the future. Social and ecological awareness is integrated with ethical issues, such as in considering the value of natural ecosystems, animal rights, pollution and waste, climate change, population growth, sustainability, over-consumption, and resources and energy use. The study of environmental ethics facilitates the growth of social and ecological wisdom; it addresses broad and interdisciplinary questions regarding what constitutes a global preferable future. *The New Atlas of Planetary Management* by Myers and Kent (2005)—a superbly illustrated, action and future focused text—as well as online material identified in an extensive web

bibliography on ecology, evolution, and environmental ethics (Lombardo, 2009c) that I developed are core readings in the course.

## **Educational Structure and Community**

The overall educational structure of the program reflects many of the features of the original integrative program but as can be seen there is a variety of new features reflective of my work on deep learning, ethics, wisdom, and future consciousness. Students would still be required to attend an all-day orientation where they would receive a manual covering the main goals of the program. But there would be included in the manual (and explained in the orientation) a course program grid which identifies which educational goals are focused upon in each course, as well as a set of measurable objectives for each of the educational goals. Research in deep learning indicates that the clearer the learning objectives are for the students, the better they learn. Clear goals and objectives also provide a systematic and integrative structure for the teachers.

Moreover, courses would now be all hybrid in format. The entire course content would be online, but students would be required to meet regularly in person for dialogue, social activities, interpersonal contact and camaraderie with students, as well as for personal inspiration and guidance from the teachers. Online education suffers from a lack of social interactivity, but information technology does offer a variety of supplemental learning benefits, including web resources, video, and social media and networking. The hybrid format combines the best of online, technologically-facilitated, and in-person learning environments.

All assignments would be graded relative to the educational goals and measurable specific learning objectives identified for each assignment; students would always be informed of what criteria they were being graded on, and they would receive feedback specific to those grading criteria. (As described earlier, I first developed and tested this system of grading and feedback using the deep learning grading criteria in my department courses.) Also as I pointed out above, this precise and methodical approach to grading and feedback facilitates better performance in students. The objectives, used as grading criteria for assignments, incorporate the “deep learning” and “critical thinking” grading criteria I developed as department chair, but extend further to cover all the educational goals, which of course, includes higher cognitive skills.

The portfolio concept from the original *PASS* program would be maintained but further articulated. It would now be an e-portfolio. Students would include one selected assignment per course, and comment upon what they learned from doing the assignment. Hence, students would be expected to be self-reflective about their learning. But they would also be asked through this activity to take a narrative perspective on their education; that is, they would have to think across time, watching for trends in their educational and personal development. As I noted above, creating self-narratives greatly benefits the emergence of a positive, coherent, and realistic sense of direction and purpose in life. In the final course in the program, which focuses on their future and their

career goals, students would be required to do a systematic overall assessment of growth and learning through the program, and specifically address how the program helped them to prepare for their future. Students would not be allowed to graduate from the program without doing a “very good to excellent” job on their e-portfolio and final self-assessment.

The social community dimension of the program is also a top priority, of central value in creating a constructive learning experience for the students. First, teachers would need to be strongly participatory in the learning community. They would go through an orientation to the program as well (receiving a teacher orientation manual), where they would be familiarized with the central goals and values of the program. It would be the responsibility of the program leadership to facilitate inspiration and dedication within the teachers; in this regard, in the past I have distributed copies of Parker Palmer’s elevating and impassioned book *The Courage to Teach*, to my department faculty (Palmer, 1998). In spirit, Palmer’s book embodies many of the principles of wisdom applied to teachers. The teachers in the program would be a collaborative faculty (as opposed to a set of isolated individuals each doing their own thing). They would need to see that they are to serve as role models for the philosophy of what is being taught; they would be role models of wisdom, virtue, heightened and expansive consciousness, with an eye on the future. They walk the talk. Further, teachers would need to know their students (online formats severely limit this). In general, the teachers would be the centers of gravity, personally and intellectually, of a learning, thinking, and visionary social community and culture.

Equally so, students would need to create both an in-person and electronic learning community. Whereas the in-person dimension to the program facilitates the development of social cohorts, inter-personal interaction, and mutual support, the electronic community is nurtured and, in part, seeded and guided by the teachers within the program.

In the original integrative program one of the educational goals was “independent learning skills,” and within the list of key academic virtues I described in my academic ethics workshop, self-responsibility and accountability were included at the top as essential for the development of all of subsequently listed virtues. Though in the previous paragraphs I highlighted the social and community parameters within the program, it is important to also emphasize the complementary dimension of individual initiative and responsibility. Students may seek out (and undoubtedly will need) social support and guidance from other students as well as teachers, but all students must practice and develop increasing self-responsibility; all students must cultivate self-efficacy, an essential personal trait toward heightened future consciousness and psychological well-being.

Related considerations also apply to teachers. Although the skeletal structure of courses, along with appropriate assignments and corresponding learning objectives are determined in advance, teachers need to be given the space and opportunity to flower individually. The learning that takes place in the classroom; meeting with students individually for guidance and help; and online interactions are all opportunities for the teachers to bring their individual

strengths, personal traits, and values into the arena. We do not want automatons, either among our students or our teachers. We do not want individuals who have no sense of internal locus of control. Individuals need to feel appreciated and recognized for their unique voice and perspective; in fact, they are held responsible for developing it.

### **Integrative, Wisdom and Future Focused Assignments**

To give a flavor for the kind of learning emphasized in the program, included below is a sample of the types of assignments and questions that students would be asked in their course of study. These assignments would be graded using the specified objectives for each of our educational goals, and would highlight deep learning, critical thinking, self-reflection, character virtues and ethics, wisdom capacities, expansive and integrative consciousness, and future focused issues, challenges, and goals:

- Pre-Test within individual courses: Describe your understanding and beliefs about the area you are going to study. Post-Test: Re-describe your beliefs and understanding of the area of study you have just completed, comparing your answer with your pre-test, and noting particular areas of growth and significant learning.
- Describe a central idea (or principle) in an area of study and explain and justify, using principles of integrative, critical and reflective thinking, why you believe it is so important.
- Compare, support, and critique two or more theories in an area of study. Select and justify which theory you believe is the best.
- Project into the future for a given area of study. How would you thrive in such a reality?
- Based on key ideas studied within an area or discipline, integrate and create your own theory of the area of study.
- How have your beliefs or values changed as a consequence of learning a new discipline?
- Describe and support, with reasons and evidence, a solution to a contemporary or future problem or challenge.
- Apply key ideas studied to the improvement of your life, your community, or human society at large.
- Describe an ideal future self-narrative; what is the plan—what is the vision? What virtues are embodied in this narrative?
- How would your ideal self-narrative fit within the future as best as you can anticipate it? How would you contribute to or affect such a future? How would such an envisioned future affect you?
- How would your ideal future self contribute to the future evolution of humanity?
- How would your ideal future self-narrative embody and express the virtue of wisdom?

## Conclusion: Contributing to the Next Enlightenment

*“At times of challenge and uncertainty,  
nothing seems more important than wisdom.”*

*Stephen Hall*

What I envision in such a program is a “revolution in education”—a revolution that isn’t focused so much on technologically enhanced modes of delivery and learning (though I do not wish to discount such factors as potentially significant) but rather a revolution in the content and skills of what is learned within the educational environment. Fundamentally, it is setting the standards higher; bringing ethical character into the picture; making the learning relevant to life and psychological well-being; and developing those capacities and traits essential to creating a positive future both for the students and the world in which they will live. The overarching goal is to facilitate the development of wise students with heightened future consciousness.

Wisdom is a journey rather than a destination, and the wise individual realizes that knowledge is continually evolving, that the world is a dynamic and perpetually changing place, and that one must remain humble and open to the possibilities of the future (Lombardo, 2006c; Hall, 2010). As Andre Gide stated, “Believe those who are seeking the truth; doubt those who find it.” This is wisdom. I believe this spirit of sagacious wonder, exploration, and expansive consciousness provides a center of gravity for what Walter Truett Anderson calls for in his expression “The Next Enlightenment” (Anderson, 2003; Lombardo, 2006b, 2007d, 2007e). Given the accelerative growth of change and the global and ecological challenges of the contemporary human condition, our future evolution in the twenty-first century needs to be guided by wisdom (Lombardo, 2011a).

Future consciousness needs to be global in scope and modes of understanding; it should be expansive and integrative, incorporating the lessons of the past, and the ecological and even cosmic setting of the human condition; it must be ethically driven and tied to the character development of individuals; it has to be practically connected with the challenges and opportunities of life; it should be supported by good thinking skills and creative imagination; it must serve humanity as a whole, and not just the individual; in essence, it ought to revolve around the cultivation of wisdom. These are the goals of this program. We need to generate a new enlightenment within higher education, where guiding the wise journey into the future takes center stage.

\* \* \* \* \*

## Bibliography

Anderson, Walter Truett *The Next Enlightenment: Integrating East and West in a New Vision of Human Evolution*. New York: St. Martin’s Press, 2003.

- Bell, Wendell *Foundations of Future Studies: Human Science for a New Era*. Volumes I and II. New Brunswick: Transactions Publishers, 1997.
- Bransford, John, Brown, Ann, and Cocking, Rodney (Ed.) *How People Learn: Brain, Mind, Experience, and School*. Washington, D.C.: National Academy Press, 2000.
- Cornish, Edward *Futuring: The Exploration of the Future*. Bethesda, Maryland: World Future Society, 2004.
- Damasio, Antonio *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*. New York: Harcourt Brace, 1999.
- Gardner, Howard *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books, 1983.
- Gardner, Howard *The Disciplined Mind: What All Students Should Understand*. New York: Simon and Schuster, 1999.
- Glenn, Jerome, Gordon, Theodore, and Florescu, Elizabeth *2010 State of the Future*. Washington, D.C.: The Millennium Project, 2010.
- Gardner, Howard *Five Minds for the Future*. Boston: Harvard Business Press, 2008.
- Hall, Stephen S. *Wisdom: From Philosophy to Neuroscience*. New York: Alfred Knopf, 2010.
- King, Patricia and Kitchener, Karen *Developing Reflective Judgment: Understanding and Promoting Intellectual Growth and Critical Thinking in Adolescents and Adults*. San Francisco: Jossey-Bass, 1994.
- Kitchener, Karen and Brenner, Helene "Wisdom and Reflective Judgment: Knowing in the Face of Uncertainty" in Sternberg, Robert (Ed.) *Wisdom: Its Nature, Origins, and Development*. New York: Cambridge University Press, 1990.
- Lombardo, Thomas and Richter, Jonathon "Evolving Future Consciousness through the Pursuit of Virtue" in *Thinking Creatively in Turbulent Times*. Didsbury, Howard (Ed.) Bethesda, Maryland: World Future Society, 2004.
- Lombardo, Thomas *The Evolution of Future Consciousness: The Nature and Historical Development of the Human Capacity to Think about the Future*. Bloomington, IN: AuthorHouse, 2006a.
- Lombardo, Thomas *Contemporary Futurist Thought: Science Fiction, Future Studies, and Theories and Visions of the Future in the Last Century*. Bloomington, IN: AuthorHouse, 2006b.
- Lombardo, Thomas "The Pursuit of Wisdom and the Future of Education" *Creating Global Strategies for Humanity's Future*. Mack, Timothy C. (Ed.) World Future Society, Bethesda, Maryland, 2006c.
- Lombardo, Thomas "Developing Constructive and Creative Attitudes and Behaviors about the Future" Parts I-IV in *World Futures Studies Federation Futures Bulletin*, Volume 31, No. 6, November, 2006d; Volume 32, No. 1, January, 2007a; Volume 32, No. 2, March, 2007b; Volume 32, No. 3, June, 2007c.
- Lombardo, Thomas, "The Evolution and Psychology of Future Consciousness" *Journal of Future Studies*, Volume 12, No. 1, August, 2007d.

- Lombardo, Thomas "Wisdom and the Second Enlightenment" in *World Futures Study Federation Futures Bulletin*, Volume 32, No. 3, June, 2007e.
- Lombardo, Thomas "Ethical Character Development and Personal and Academic Excellence" [http://www.centerforfutureconsciousness.com/pdf\\_files/Readings/EthicalCharDevWrkshp.pdf](http://www.centerforfutureconsciousness.com/pdf_files/Readings/EthicalCharDevWrkshp.pdf), *Center for Future Consciousness*, April, 2008a.
- Lombardo, Thomas "Futures Education and the Ideal Future Self-Narrative" [http://www.centerforfutureconsciousness.com/pdf\\_files/Readings/WFSPaperApr2008SelfNarrative.pdf](http://www.centerforfutureconsciousness.com/pdf_files/Readings/WFSPaperApr2008SelfNarrative.pdf), *Future Times: Learning for Tomorrow*, Spring, 2008b.
- Lombardo, Thomas "Understanding and Teaching Future Consciousness" *On the Horizon*, Volume 17, No. 2, 2009a.
- Lombardo, Thomas "The Wisdom of Future Consciousness" in *Innovation and Creativity in a Complex World* (Ed. Cynthia Wagner). Bethesda, Maryland: World Future Society, 2009b.
- Lombardo, Thomas "Web Bibliography on Ecology, Gaia, and the Environment" *Center for Future Consciousness*, [http://www.centerforfutureconsciousness.com/pdf\\_files/2010WebResources/Website%20Topic%207%20Ecology.pdf](http://www.centerforfutureconsciousness.com/pdf_files/2010WebResources/Website%20Topic%207%20Ecology.pdf), 2009c.
- Lombardo, Thomas "Multidisciplinary and Interdisciplinary Approaches to Futures Education" *Journal of Futures Studies*, Volume 14, No.4, June, 2010a.
- Lombardo, Thomas "Wisdom Facing Forward: What It Means to Have Heightened Future Consciousness" *The Futurist*, September-October, 2010b.
- Lombardo, Thomas "Wisdom in the Twenty-First Century: A Theory of Psycho-Social Development" *World Affairs Journal*, March, 2011a.
- Lombardo, Thomas "Wisdom, Enlightenment, Science, and the Future" *Science, Wisdom, and the Future*. Genet, Cheryl (Ed.) Santa Margarita, CA: Collins Foundation Press, Fall, 2011b (Forthcoming). ([http://www.centerforfutureconsciousness.com/pdf\\_files/Articles/WisdEnlightScientFutFinal.pdf](http://www.centerforfutureconsciousness.com/pdf_files/Articles/WisdEnlightScientFutFinal.pdf))
- Macdonald, Copthorne *Toward Wisdom: Finding Our Way Toward Inner Peace, Love, and Happiness*. Charlottesville, Virginia: Hampton Roads Publishing Company, 1996.
- Macdonald, Copthorne *Matters of Consequence: Creating a Meaningful Life and a World that Works*. Charlottetown, Prince Edward Island, Canada: Big Ideas Press, 2004.
- Macdonald, Copthorne *The Wisdom Page*. <http://www.wisdompage.com/>.
- Maxwell, Nicholas *From Knowledge to Wisdom: A Revolution for Science and the Humanities*. Second Edition. London: Pentire Press, 2007.
- Myers, Norman and Kent, Jennifer (Ed.) *The New Atlas of Planet Management*. Berkeley, CA: University of California Press, 2005.
- Nisbett, Richard *The Geography of Thought: How Asians and Westerners Think Differently ...and Why*. New York: The Free Press, 2003.
- Palmer, Parker *The Courage to Teach: Exploring the Inner Landscape of a Teacher's Life*. San Francisco: Josey-Bass, 1998.

- Paul, Richard *Critical Thinking: What Every Person Needs to Survive in a Rapidly Changing World*. Rohnert Park, CA: Foundation for Critical Thinking, 1993.
- Paul, Richard, and Elder, Linda *The Miniature Guide to Critical Thinking*, The Foundation for Critical Thinking, 2006 - [http://www.criticalthinking.org/files/Concepts\\_Tools.pdf](http://www.criticalthinking.org/files/Concepts_Tools.pdf) .
- Seligman, Martin *Learned Optimism: How to Change Your Mind and Your Life*. New York: Pocket Books, 1998.
- Seligman, Martin *Authentic Happiness: Using the New Positive Psychology to Realize Your Potential for Lasting Fulfillment*. New York: The Free Press, 2002.
- Shlain, Leonard *The Alphabet Versus the Goddess: The Conflict Between Word and Image*. New York: Penguin Arkana, 1998.
- Sternberg, Robert (Ed.) *Wisdom: Its Nature, Origins, and Development*. New York: Cambridge University Press, 1990.
- Sternberg, Robert and Jordan, Jennifer (Ed.) *A Handbook of Wisdom: Psychological Perspectives*. New York: Cambridge University Press, 2005.
- Wheelwright, Verne *It's Your Future...Make it a Good One!* Personal Futures Network, 2010.
- Wilson, E.O. *Consilience: The Unity of Knowledge*. New York: Alfred A. Knopf, 1998. (a)
- Wilson, E.O. "Back from Chaos" *The Atlantic Monthly*, March, 1998. (b)