DEVELOPMENTAL OUTCOMES: MONTESSORI'S FUTURISTIC REPORT CARD FOR THE ADOLESCENT

by David Kahn

(Please note all unreferenced quotes are from Maria Montessori, From Childhood to Adolescence.)

Introduction

Since Maria Montessori's seminal thinking about the adolescent is rooted in the land-based farm model, the discussion of social, moral, cognitive, and emotional outcomes is based on her writings about the adolescent in a cooperative model, working and studying at the same time. However, the outcomes as stated are generalized psychological descriptions and therefore may have applications to Montessori adolescent education in non-farm settings as well as in the family.

Social Development

The Socially Prepared Environment

Maria Montessori calls her "essential reform" of secondary education a "school of experience in the elements of social life" (107). First and foremost, work and study in the environment prepared for the adolescent would be based in economic and social understandings similar to those suggested more recently by both David Orr and David Hutchison in their descriptions of the educational value of place. Place builds a context for social relations; it is the staging area for human community structure, enhanced by a deep encounter with the natural world.

In his book *Ecological Literacy,* Orr emphasizes education with nature and with the community: "The idea that place could be a significant educational tool was proposed by John Dewey in an 1897 essay. Dewey proposed that we 'make each of our schools an embryonic community … with types of occupations that reflect the life of the larger society.' He intended to broaden the focus of education, which he regarded as too 'highly specialized, one-sided, and narrow.' The school, its relations with the larger community and all of its internal functions, Dewey proposed to remake into curriculum. (127)

David Hutchison underscores Orr's principles with what he calls "the spirit of place." The spirit of place is rooted in community relationships and values implicit to "ecologically sustainable contexts":
:To know one's place is to have an intimate knowledge of the local environment (both natural and built) and the various professional roles, shared histories, and interdependent relationships that sustain the community over the long term. To further strengthen children's ties to the local community, their participation in community projects that help to nurture culturally significant relationships between young and old can be fostered by way of apprenticeship-style programs and community renewal efforts that arise within ecologically sustainable contexts." (129)

Place is defined by its limits; it is immediate and on a small scale: a building, a neighbourhood, a hundred acres easily walked across in a day. Place is where we live—a source for food, water, energy, materials, friends, and recreation. Place in a diminished sense is real estate, but the developmental definition of place refers to the larger economic, ecological, social, political, and spiritual elements of the immediate surroundings. Place is a community to which the adolescent feels he or she both belongs and contributes. The farm school (what Maria Montessori called Erdkinder) is a perfect place for practical (hand) and intellectual (head) training.

"Occupations" or Work as Social Activity

"Occupations," as both Maria Montessori and John Dewey envisioned them, are the point of engagement for the adolescent on the land. They are a source of meaningful work, work that will be valued by the community itself, work that challenges both the mind and the body, work that is recognized as legitimate by the culture, work that has economic validity, work that is made noble by being done with integrity and passion.

Engagement leads to a sense of ownership and stewardship.

The specific nature and purpose of an occupation or practical activity involving responsibilities may inspire a student to commit to the occupation, not as part of a vague choice for the moment, but with spurts of passion about what needs to be done as part of belonging to a community. As an individual thus begins to develop a specific interest and expertise in an occupation, community recognition of the individual's contribution usually follows. The adolescent's resulting sense of pride and accomplishment matures the occupation into a role.
The transition from occupation to role is subtle. In effect, the student tries on the role and becomes immersed in the knowledge and the process of a specific calling: "I am the sugar bush builder, I am the videographer, I am the beekeeper, I am the bookkeeper." Being an interdependent part of a concrete venture, learning how to interact in order to cooperate freely, and trying on different occupations and roles matures young people and makes them useful in their own eyes.

Looking to the economic self-sufficiency of the adolescent farm community, Maria Montessori highlights economic independence as "the general principle of social education for adolescents" (104). She speaks of the "wide social connotations of productiveness and earning power" (106). She remarks that "If the produce can be used commercially this brings in the fundamental mechanism of society, that of production and exchange, on which economic life is based" (107).

Most importantly, on the farm, the work role will function for the greater good. The adolescent's desires, emotions, and attachments are tied up with the whole community—the work is connected with the social enterprise of the farm. Social aims convert an occupation into a role. Assuming a role in something implies that the occupation touches or engages a person and transforms that person, elevates that person's aims in life, validates the self, centres the personality, and adds impetus to learning. The adolescent's interest evolves into a "community task," where the student sees the work as essential to the whole. A higher socialisation occurs, which is able to translate the experienced roles on the farm into a view of the collective role of humanity: the "cosmic task" of the individual and of humanity in general. The adolescent is a "social newborn," which means that the adolescent is "a newborn member of adult society, a newborn participant in adult society; he or she is newly born as one who can 'take an active part in society's productive labours or in regulation of its organisation.'" *(Grazzini & Krumins)*

Social Outcomes

Social outcomes for the early adolescent stage of life include these:

- learning to live in domestic relations with others and to work through human problems;
- learning what it means to make a contribution;
- understanding interdependency and the need to cooperate with adults and peers in relation to the rest of the world;
- assuming work roles and their social and cosmic implications, projecting the benefits of an active role in society;
- adapting to a variety of work demands for the sake of others—the beginning of social consciousness;
- understanding work as a product of commerce necessary to community life, leading to a beginning view of economic independence and interdependence;
- balancing individual initiatives in relation to community goals; and
- learning the meaning of rules and their importance to harmonious living.

Moral Development

Maria Montessori points out that "the observation of nature has not only a side that is philosophical and scientific, it has a side of social experiences that leads on to the observations of civilization and the life of men" (106).

Emerging out of these maturing roles on the farm is the "more dynamic training of character and development of a clearer consciousness of social reality" (100). Adolescent psychological characteristics described by Montessori include "a state of expectation, a tendency towards creative work and a need for strengthening of self confidence" (101). She further ascribes to adolescents a "sensitive period when there

should develop the most noble characteristics that would prepare a man to be social, that is to say, a sense of justice and a sense of personal dignity." The occupations and roles on the land provide "an exercise of 'utilized virtues,' of 'super-values' and skills acquired beyond the limits of one's own particular specialization, past or future" (103). Thus it is through the occupations and roles on the land that "valorization" of personality takes place; the students feel valued because they are making a tangible contribution. The individual student succeeds in a task by very personal effort with a sense of accomplishment arising out of the work completed and the economic benefits therein.

Moral Outcomes

Moral outcomes for the early adolescent stage of life include:

- respect for others and their roles;
- a sense that work is noble and the assumption of adult-like responsibilities;
- grappling with social and moral problems, such as the right use of the natural environment or the ethics of science;
- individual initiative and commitment to freely chosen work;
- pleasure in individual progress that enhances group progress and contributes to others;
- the development of a mission orientation and service to the universal needs of a larger humanity;
- the asking of big ethical questions—e.g., What makes for a virtuous life? How can we build a better world?; and
- conscience exercised by community values and responsible dialogue.

Cognitive Development Place, Study, and Work

When exploring place, the adolescent examines the natural data of the community—the flora and fauna, the archives of the region, the architectural remnants of its settlement period, and its diverse communities, each with respective unfolding histories.

But it is not until the student actually takes on real-life occupations that the cognitive process truly integrates with the social, moral, and emotional elements. Occupations not only fulfil the adolescent's need to belong and be valued, but they also provide the motivation for academic study: "work on the land is an introduction both to nature and to civilization and gives a limitless field for scientific and historic studies.… there is an opportunity to learn both academically and through actual experience what are the elements of social life" (107).

In a progression derived in part from John Dewey, an occupation leads naturally to a search for contextual knowledge (academic study):

- An occupation provides direct experience, which by nature is urgent, intimate, and engaging. It contrasts with symbolic experience, which can be remote, detached, and even beyond the comprehension of the adolescent. (Note the similarity to an exercise of practical life in the Montessori preschool.)
- An occupation is limited in nature. The contextual knowledge to which it leads has concrete boundaries (like the Montessori materials), keeping work and study always in relation to the surrounding environment and the specifics of the occupation.
- Within these limits, the occupation demands knowledge, which may involve measurement, refinement of the senses, precision, coordination, research, and, finally, expression in oral or written form. The knowledge demanded is rigorous and, if incomplete, means that the occupation cannot be fully engaging, understood, integrated into the surrounding whole, or even completed.
- The web of life (interdependencies) provides a cognitive framework. When occupations are structured around different interdependent parts of nature, a whole interdisciplinary science study emerges, which is required to inform those occupations. Here are a few examples:
- Work with the soil introduces both geological and biological studies. The biological applies to

the teeming life in the soil. The geological aspect extends to soil's mineral content.
- Work with water suggests studies related to the origin of life and to earth's history. It is studied for its physical and chemical properties relevant to farming, geology, and geography.
- Air is studied for its role in earth's climate and in plant and animal life cycles.
- Energy is studied as a comprehensive force that begins with the Big Bang and has global implications as a universal human resource. It can be viewed from the standpoint of alternative technology for the production of energy available to the farm.
- Animals and plants are studied for their role in natural ecosystems and for their relationship to humans in agricultural science, food processing and distribution, domestication, and the history of civilisation.
- The human organism is studied for its collaboration with the life agents and its building of human systems that are compatible with the systems found in the natural world.

The knowledge demanded for a project-based, experience-based kind of learning is not a subject to be covered, but rather knowledge to be applied for the greater good of the operating Erdkinder through the work of a common enterprise. Thus, the occupation's roots in meaningful work extend to the related contextual study and provide adolescents with the motivation to become an "expert" in their occupational area. This infuses academic work with purpose and meaning.

Montessori's Educational Syllabus

Maria Montessori's "Educational Syllabus" is not a mere subject list. She describes knowledge in psychological terms such as "opening up ways of expression," addressing the "'formative forces' in the evolution of the soul of man," or making the "individual a part of … civilisation" (115).

Montessori divides the "Educational Syllabus" into three parts (115-119). The first, "opportunities for self-expression," encompasses artistic, linguistic, and imaginative activities—music, language, and art. Next is "the 'formative' education that will construct firm foundations for the character," consisting of moral education, mathematics, and languages. Finally, "general education" is presented as "the preparation for adult life," encompassing three divisions of history: "The study of the earth and of living things" pertains to natural history; "the study of human progress and the building up of civilisation" refers to the history of human achievement and technology; and, finally, "the study of the history of mankind" encompasses the physical and intellectual range of human activities: migrations, exploration, human settlement, government, and civics. Closer examination of these divisions of history suggests a myriad of intellectual studies.

Cognitive Outcomes

Cognitive outcomes for the twelve- to fifteen-year-old in an Erdkinder setting include these:

- opportunity for personal expression integrated within a variety of artistic, speaking, musical, and media modalities in direct relation to occupations and role development within the community;
- philosophical consideration of questions of nature and cosmos;
- analysis of scientific causality in the natural world and the cosmos;
- increased understanding of the mathematics directly connected to the practical needs of the farm environment and to the symbolizing of scientific observation of data;
- increased facility in a variety of languages and the ability to use language to penetrate different cultures and improve human understanding;
- ability to connect the history of life on earth and its civilizations with principles of the evolving self as well as the social evolution of a human community;
- a view of the whole of history and the future destiny of humans, and reflection on the individual contribution one makes to the creative direction of the future; and
- understanding of the nature of interdisciplinary studies, the relationship between the disciplines and the totality of the natural and human-built worlds, and the available tools and technology to continue the inquiry as to how knowledge can best be used.

Cognitive extends to all parts of human functioning; it is embedded in knowing not only the facts of the world but, in the words of Maria Montessori, “a clear picture of ‘mankind in the world.’”

Emotional Development

In the first chapter of the Erdkinder essays, Maria Montessori speaks of the insecurity of modern children, “We have lost that security which we had in the past” (98), alluding to the shifting nature of modern conditions. She uses an interesting agricultural metaphor to describe the extreme changes of the world: “The world is like a piece of land that is going through the vicissitudes of a settlement of the soil” (99).

To counter a world that has an unsure future, especially from the point of view of the adolescent, Montessori writes:
“… a man must have strong character and quick wits as well as courage; he must be strengthened in his principles by moral training and he must also have a practical ability in order to face the difficulties of life. Adaptability—this is the most essential quality; for the progress of the world is continually opening new careers, and at the same time closing or revolutionizing the traditional types of employment.… there is a need for a more dynamic training of character and the development of a clearer consciousness of social reality. “ (99-100)

Adaptation at the adolescent level, because it encompasses a widening level of social reality, entails a higher level of complexity and a direct connection to emotional life. Mario M. Montessori suggests a broad definition of adaptation that is measured by an optimal state of happiness:

“Dr. Montessori explained what she meant by “adaptation.” To her the word meant happiness, ease and the sort of inner equilibrium which gives a sense of security.… It is based on the permanency of the spiritual, ethical and economical equilibrium of the group environment he may grow up in. For adaptation thus considered, “stability” plays a great role, because it represents the basis from which to start towards the realisation of the individual’s aspirations. It is as the solid ground is under one’s feet when walking.” (1)

Referring to spiritual equilibrium or sense of balance as the basis of educational success, Maria Montessori places emphasis on the valorisation (strengthening) of self-confidence, sociability, and a sense of dignity and justice (101). The greatest source of valorisation is work, noble work, two forms of work—both manual and intellectual—work that is productive, work that is rooted in independence (112). Work must be freely chosen, and therefore a natural “change over” of occupations (as opposed to “units”) must provide a variety of ongoing work options as well as a time for reflection and quiet. Maria Montessori also talks about “the opening of ways of expression,” which include music, speech, drama, and art (115).

Emotional Outcomes

As a result of engaged work, the following outcomes lead to harmonious feelings as suggested by Montessori’s keen vision of what is innermost to adolescent emotional life:

- revelation of the innermost “vocation” (deep calling) of the soul, a sense of mission or commitment to one’s work and life;
- understanding of the connection between personal vocation and the “vocation of man” (Montessori, Maria 112);
- feeling of self-sufficiency, of self-confidence, of taking care of self and others;
- inner harmony and happiness due to personal contribution, love of work, love of study and achievement, and a personal participation in the work of society;
- hope of future world progress;
- joy in seeing the relationship of one’s own life with the history of human culture, recognition of the importance of being a keeper of human culture;
- freedom in spontaneous collaboration with others in a harmonious connection with the natural world;
- feeling that human life has value and a role to play in the cosmos—a feeling of triumph;
- feeling of belonging to the world human community and to the earth;
- feeling of personal discipline, creativity, beauty, and productiveness in connection with the learning of hand-crafted art and practical achievement;

- feeling that one can be in control of change, internally and externally, in one's personal and social evolution;
- feeling of usefulness and an understanding of one's "many sided powers of adaptation" (Montessori, Maria 102); and
- belief in the human capacity to solve problems and in the spiritual source of life to overcome adversity.

The emotional dimension of the early adolescent stage of development (ages twelve to fifteen) might be viewed perhaps as the end state for childhood, now setting up terms for the unveiling of just what joining a society of adults really means. The work is a "great work," a natural work having the intense emotions of a "vocation," not in the career sense, but in satisfying a psychic need to meet real-life challenges, to grow, and to make a contribution to the whole of humanity.