

MONTESSORI AND OPTIMAL EXPERIENCE RESEARCH: TOWARD BUILDING A COMPREHENSIVE EDUCATION REFORM

by David Kahn

ON NORMALIZATION

In 1996, I asked Margaret Stephenson about normalization for the second and third planes (elementary and adolescent, respectively). She responded in this way: "There is no such thing as normalization for the second and third plane. Normalization is a first plane [early childhood] phenomenon." After I explored the Montessori literature, it became clear that she was quite right. Montessori distinguishes between *normalization* and *normality*.

What is *normalization*? Montessori's most succinct description of normalization is as follows:

Only "normalised" children, aided by their environment, show in their subsequent development those wonderful powers that we describe: spontaneous discipline, continuous and happy work, social sentiments of help and sympathy for others....

Its principal feature never changes. It is "application to work." An interesting piece of work, freely chosen, which has the virtue of inducing concentration rather than fatigue, adds to the child's energies and mental capacities and leads him to self-mastery. (*The Absorbent Mind* 257)

In *The Formation of Man*, Montessori writes about *normality*:

Let us now suppose that a method of education recognizes that it is necessary to normalize a child right from the beginning and then to keep alive the natural continuation of this state of normality. That method would then have for

its foundation a kind of “psychic hygiene” which helps men to grow up in a good mental health. (34)

This passage suggests that *normalization* is foundational and that *normality* is the sustaining of psychic health and motivation beyond the first plane.

ON FLOW AND OPTIMAL EXPERIENCE THEORY

Mihaly Csikszentmihalyi described *flow* as “the quality of experience as a function of the relationship between challenges and skills. Optimal experience, or flow, occurs when both variables are high” (16). In the same article, Csikszentmihalyi presented the chart shown here as Figure 1. When skills are high and challenges are low, for example, a person can experience states like relaxation or even boredom; when challenges are high and skills are low, anxiety or worry can result; when both skills and challenges are low, a person can experience apathy. When challenges and skills are matched at a high level, the resulting state is flow.

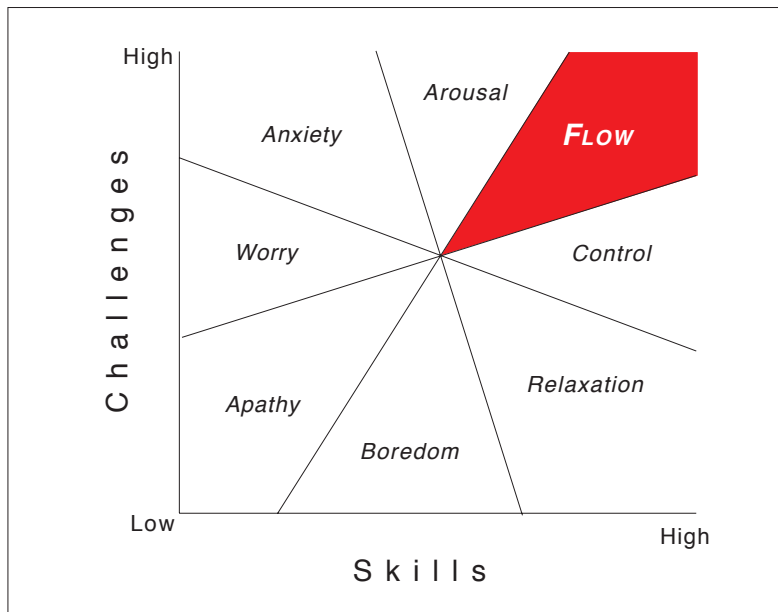


Figure 1. Quality of Experience as Relationship between Challenges and Skills.

Csikszentmihalyi listed the conditions of the flow experience as follows (8):

1. *Goals Are Clear*: One knows at every moment what one wants to do.
2. *Feedback Is Immediate*: One knows at every moment how well one is doing.
3. *Skills Match Challenges*: The opportunities for action in the environment are in balance with the person's ability to act.
4. *Concentration Is Deep*: Attention is focused on the task at hand.
5. *Problems Are Forgotten*: Irrelevant stimuli are excluded from consciousness.
6. *Control Is Possible*: In principle, success is in one's hands.
7. *Self-Consciousness Disappears*: One has a sense of transcending the limits of one's ego.
8. *The Sense of Time Is Altered*: Usually it seems to pass much faster.
9. *The Experience Becomes Autotelic*: It is worth having for its own sake.

Flow, then, includes spontaneous discipline, concentration, and engagement—all of which part of the normalization concept. When told about Montessori's normalization idea, Dr. Csikszentmihalyi quipped, "My goodness, this is fascinating. Dr. Montessori regarded normalization or *flow* as the norm of the species!" At this point a world-celebrated psychologist from the University of Chicago began to pursue the connection between his optimal experience called *flow* and Montessori's normalization.

THE MARRIAGE OF FLOW AND NORMALIZATION

The introduction of flow into the Montessori culture has had an invigorating effect. Csikszentmihalyi maintained that the Montessori concept of normalization was solid, but the semantics were limiting. *Flow* is a different word than *normalization* and seems to speak to more people. Tested in parent education sessions where the word *flow* has been introduced, adults relate easily to what gives them flow. Flow is deep engagement, they are told. Flow is when you lose track of time because you are so involved with your work. When you are in flow, problems fade away and your involvement goes deeper with every step. Every adult can give examples of flow in a parent education workshop—skiing, knitting, reading, etc. Then, dramatically, the Montessori professional can state: “In the Montessori school, every child chooses activities that give flow. What if you went to a school where the environments were designed to create an optimal learning experience called *flow*?” *Flow*, applied to the adult stage, is able to help adults connect with Montessori’s concept of *normalization* in early childhood.

This connection applies to Montessori teachers as well. Using the accessible term *flow* has encouraged the Montessori practitioner to see normalization as central, as an external manifestation of inner development. Although the concept of normalization is given much attention in Montessori teacher training, the actual importance of the idea at the classroom level may not yet be fully explored or understood as the powerful indicator of optimal experience that it is. Flow captures the imagination of the Montessori professional and reinforces the understanding of normalization.

However, flow is not normalization. Until now, it has not been attached to scientifically created environments such as the Montessori prepared environment. Flow has been applied to adult and adolescent psychology, a top down application. Although flow’s introduction to Montessori supports the Montessori mission of psychic wellness from birth through adulthood, flow does not really address early childhood and childhood. The marriage between flow and Montessori education has many future possibilities because both theories are dedicated to unmasking the truth about intrinsic motivation and observing and

measuring levels of engagement. NAMTA plans to explore flow in relation to all stages of development as well as to review best practices at the adolescent education level. The flow research model creates a tangible, scientific view of normalization that has not yet been detailed in the Montessori literature even at the early childhood level.

So with Montessori theory working from birth up and flow theory working from adulthood down, the combined theories support the entire developmental continuum. The developmental framework is now richer as the two theories “frame” spontaneous discipline throughout the life span. In addition, Csikszentmihalyi’s research has investigated the creative adolescent and adult, providing a glimpse of the “new adult” that Montessori pedagogy may be able to facilitate through its educational efforts.

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RESEARCHING FLOW AND NORMALIZATION

Csikszentmihalyi introduced NAMTA to a student he had mentored at the University of Chicago, Kevin Rathunde, a brilliant PhD graduate from the Committee on Human Development. Currently, Dr. Rathunde is Associate Professor at the University of Utah. Having co-authored and collaborated on significant research with Csikszentmihalyi over a ten-year period, Dr. Rathunde accepted a research commission with NAMTA and published his “Montessori Education and Optimal Experience: A Framework for New Research” in *The NAMTA Journal*. He opened this seminal article by stating these goals:

First I will argue that not all the gold has been mined out of Montessori ideas. Some of her best insights about children and education have only recently found a corresponding theoretical perspective in the field of human development that can highlight them and provide empiri-

cal support. The perspective referred to is recent work on optimal experience (i.e., states of “flow” or deep interest) and its role in human development.

Once a conceptual bridge has been established between Montessori ideas and optimal experience theory, a second goal will be charting a course for new research on adolescent development within Montessori environments. (12)

The conceptual bridge between Montessori and optimal experience (flow) theory was facilitated not only by Kevin Rathunde but by Annette Haines, who coordinated the field study for Rathunde and provided context to what he was seeing.

**EXPLORING UNCHARTED WATERS:
NEW PATHWAYS TO EDUCATIONAL REFORM**

Rathunde’s research results published in the present *Journal* issue are extremely important to Montessori as a whole, because they focus on the end stage of extant Montessori education, namely, the young adolescent. Not only do these findings characterize the motivation and socialization of adolescents, but they begin to suggest real measures of normalization and normality throughout the planes of education. The work of Rathunde and Csikszentmihalyi, based on optimal experience theory as it pertains to intrinsic motivation, begins to externalize the elusive “unknowns” of psychic development. Montessori has often referred to “hidden powers” (*The Formation of Man* 72) needing to be discovered by the science of human development: “The basis of the reform of education and society which is the necessity of our times must be built upon the scientific study of Man the unknown” (9).

Dr. Rathunde opens his article with a review of the literature on the inner needs of adolescents and the failure of secondary education to meet those needs. He selects Montessori philosophy and practice as a model for secondary education reform, stating, “Furthermore, when the Montessori philosophy is applied to middle schools, it is surprisingly consistent with contemporary perspectives on motivation and school reform.”

The “poor fit” between adolescents’ developmental stage and the typical middle school environment, says Rathunde, “could not come at a worse time” in life: “Habits formed in adolescence could undermine lifelong learning and the future quality of life.” Given the high stakes of third-plane development, Rathunde focuses not only on data about Montessori’s effectiveness in motivation and healthy socialization as compared with traditional schools, but he also links Montessori’s strengths to two contemporary motivation theories, flow theory and goals theory, to help clarify Montessori’s contribution to school reform. He is serious about bringing Montessori into the public forum through publishing his results in mainstream educational journals.

Montessori’s writings depicted secondary school reform as a radical departure from traditional education. Montessori saw the Erdkinder (living on the land) as a model for social reform, as she states at the beginning of the Erdkinder appendices in *From Childhood to Adolescence*:

The need that is so keenly felt for a reform of secondary schools is not only an educational, but also a human and social problem. This can be summed up in one sentence. Schools as they are today, are adapted neither to the needs of adolescence nor to the time in which we live. (59)

The orientation to reform as a “human and social problem” indicates that the essence of Montessori’s revolutionary thinking is found in the early adolescent stage. She goes on to suggest that secondary school reform cannot solve all the problems of the times, but “it is certainly a necessary step, and a practical, though limited contribution, to an urgently needed reconstruction of society” (59). To be or not to be an Erdkinder is the ultimate question because, as Montessori contends, the dynamic of a microcosmic farm community motivates studies in nature, history, and science that build social interest. Since Montessori and Rathunde have both emphasized educational reform, it will be interesting to look at these findings again as to what they have to say about the future evolution of the Montessori Erdkinder model as well as the role of urban and suburban adolescent projects in motivating and socializing the adolescent.

Rathunde's present study focused on one public Montessori adolescent program, three private "urban" Montessori adolescent programs, and one farm-based adolescent project. The specific measures chosen were found to exist in all five Montessori adolescent programs, regardless of location or orientation. This suggests that Montessori adolescent programs all have general characteristics that support adolescents across the board. Teachers and prepared environments support student interests and provide high challenges and skills, playfulness, thinking combined with acting, freedom combined with discipline, positive motivation, flow, etc.

The measures used in the study include affect, potency, salience, intrinsic motivation, flow, and undivided interest. These measures begin to explore the subjective inner life of the student. The measures are also ciphers, which point in the direction of Montessori educational reform, in which children and adolescents are allowed active exploration and spontaneous concentration, resulting in "unending human development and lifelong learning" (Rathunde, "Framework" 27-28). These liberated capacities of the individual, as he or she interacts with society, transform the focus of the adult world. Society, under ideal conditions, incorporates the process of child-becoming-adult as a powerful revelation of what it means to be human.

CONCLUSION: RESEARCH RESULTS AS INDIRECT PREPARATION FOR FURTHER REFORM

It is encouraging that the report pinpoints Montessori effectiveness in improving motivation and socialization in comparison to traditional schools, but the most valuable insights are found in the exploration behind the results, what Rathunde has called a "new framework for research," which would explore the inner functions of human intelligence and emotions. The present study points up two very important connections to Montessori theory into practice:

1. It confirms that Montessori adolescents enjoy what they do. But at the same time they also see what is important about their work for the future. They are able to combine playfulness and seriousness. It therefore follows that Montessori teachers must learn to see normalization as operating between "drudgery"

and “fooling.” Drudgery is an outcome of too much seriousness due to an emphasis on structure, discipline, and future usefulness. Fooling results from too much playfulness without real challenges. Rathunde’s measure called “undivided interest” is when intrinsic motivation and seriousness are above average at the same time. Undivided interest is a very important condition to look for and characterize in our observation of older Montessori students. Playfulness and seriousness correspond to the balance between freedom and discipline.

2. It confirms that Montessori adolescents have a deep and satisfying community life, which increases as they get older. One can speculate from this that Montessori adolescents very likely will look forward to their careers and social interactions as part of their service to society and to the world. The study indicates that there is a basis for anticipating a more highly motivated and socially healthy human development within the Montessori educational plan of work and studies. Flow is the final, all-inclusive outcome, which registers very high in Montessori adolescents.

Rathunde and Csikszentmihalyi’s two research articles from this study will speak to the educational mainstream about Montessori’s ability to lead school reform. The comparisons between Montessori and traditional public schools are helpful, but it is the *contextualization* of the research that will inform Montessorians. The commentaries by Haines, Baker, and Zener bring Montessori theory and practice together around optimal experience theory, expanding Montessori’s experiential and psychological parameters.

More importantly, the findings suggest that we are getting a little closer to Montessori’s compelling vision of human reconstruction, which is nothing less than to change the world through compassion, social interest, and intrinsic motivation across the planes of development. The Rathunde / Csikszentmihalyi study enters Montessori philosophy into the current education reform debate, fulfilling Montessori’s commitment to social change and optimal development of the human personality.

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