The Alberta Journal of Educational Research *Vol. XLVIII, No. 4, Winter 2002, 341-349*

Jason Wallin
Fish Creek Elementary School, Calgary

and

Tanya Graham
West Dalhousie Elementary School, Calgary

Generativity: Lived Experience as Curricular Content

This article explores notions of work and emergence in relation to our experience of being in the world. The article takes the notion of work as something more than the mere occupations of students, reorienting it in the literature of Zen Buddhism, Marxism, and chaos mathematics. Lived experience seeks to shed light on the growing dissociation between student and curricular content and provides a concrete, practical example that suggests the possibility that both learner and learned are transformed through difficult, meaningful, and local work.

Cette étude se penche sur les notions de travail et d'émergence par rapport à notre vécu. Dans l'article, on présente la notion du travail comme une réalité dépassant une simple occupation des élèves pour la réorienter selon les pensées du Bouddhisme Zen, du Marxisme et de la théorie mathématique du chaos. Le vécu cherche à éclairer la dissociation croissante entre l'élève et le contenu du curriculum tout en fournissant un exemple concret et pratique qui propose la possibilité que l'élève et l'enseignant sont tous les deux transformés par le travail ardu, significatif et local.

The most significant, palpable teaching is generated from the case of everyday living. By coming into and creating relationships with those things that surround and permeate us, we may know them with the tangible intimacy that such communion affords. The fecundity inherent in our daily lived experiences offers us a wellspring of such meaning-making, dialogue-rich, and transformative opportunities. Through our mere being in the world, we are both invited and compelled to create and construct understanding in a whole and unimpoverished manner (Bohm, 1985). The pedagogical act as one of being in the world thus allows the opportunity for students to inquire into their lived experiences and curiosities by coming into direct contact with them. By *finding* the curriculum in the already present life of the child, we cast into play (and so back to life) those experiential minutiae that are overlooked in the frenetic daily grind (Jackson, 1968). "Small events ... become potentially 'fecund,' presenting themselves as gates or ways into the luscious roil beneath the skin of familiarity" (Jardine, 2000, p. 107). When life is the subject of study, we contend that

---

Jason Wallin is a graduate of the University of Calgary's Early Childhood Education Program. He is currently a teacher and is working on his MA in curriculum studies.
Tanya Graham is a graduate from the Early Childhood Education Program at the University of Calgary and has been teaching for four years. During this time she has taught kindergarten to grade 2 and has explored notions about generative curriculum and the social construction of knowledge.

topics emerge within a much wider, sustainable, historical, and humane context.

Educators are familiar with the notion of breathing life into the work of the school. The work of Reggio Emilia educators, for example, is a testament to a turn toward the lived experience of children as powerful agents in the negotiation of curriculum. "The emphasis of our educational approach is placed not so much on the child in the abstract sense, but on each child in relation to other children, teachers, parents, his or her own history, and the societal and cultural surroundings" (Rinaldi, cited in Edwards, Gandini, & Forman, 1998, p. 115). The tone of generativity differs markedly from the headed work that sometimes occurs in our schools. The stolid unresponsiveness and inhumanness of worksheets and the easy toleration and use of packaged activities constitute a major role in the work that occupies the lives of our students. Units of study accompanied by work booklets and texts reflect the superficiality of content addressed in many classrooms and become part of a greater movement predicated on "feeding the voracious activity beast" and "keeping children's interest" (Jardine, 2000, p. 13). "Canned" lessons, divorced from the local experience of students, come ready-made, and we know already what will be learned, free from the ambiguity and disruption inquiry might invite. The potential for students to affect or speak work anew is suffocated by a curriculum that already purports to know all the answers and ultimate goals a priori of experience. Conceptualizing the curriculum as a ready-made plan "help[s] students discover the already known [but does] not help them develop their own powers of dealing with the indeterminate" (Doll, 1993, p. 32). As Solway (2000) elucidates, curriculum as a plan "militates against chance, serendipity, and the emergence of unforseen ideas" (p. 20). Solway elaborates on this statement by suggesting that curriculum as plan restricts the intellectual freedom of both teacher and student by curtailing all possible eventualities toward fixed and preordained outcomes. Lacking history, a connection, to lived experience and transformative power, packaged work does not qualify as living. As a means to a curricular end, it is difficult to justify worksheets and abstracted units of study as either meaningfully significant or pedagogically humane. In using ready-made units of study and worksheets, we cut ourselves off from a greater sense of connectedness to life—our own lives. In this separation, the curriculum as a fixed plan invites a tone of hyperactivity wherein students rush from one activity to the next, frenetically trying to keep up and not fall behind. Curriculum conceived of as a series of activities becomes metaphorically analogous to a race that has winners, losers, efficiencies, and deficiencies.

In the development of his theory of alienation, Marx (1977) argued that connected, self-fulfilling work is integral to the development of self, and that although we are inseparable from the world in which we exist, we are capable of transforming our world through labor; that is, through our relationship with the world, through our vocation, we are capable of bringing a newness to both our work and to our life. In contrast, education in capitalist society separates children from the world of work and acts on the underlying assumption that they will one day be prepared to enter into and act critically in that world. As Marx realized, alienation follows from a fatal disjunction between the worker and the process of production. The separation of self from the activities in

which we live compromises craft, artistic quality, and the taste for purposes that are foreign and ultimately dangerous (Capra, 1982). The notion of curriculum as a space where we engage in meaningful work that is both responsive and potentially generative also speaks to the question, Who are we? (Arendt, 1958). A curriculum premised on activity and foreclosure aptly reveals what we are: competent, incompetent, gifted, or deficient in a subject area, right or wrong, *excellent, good,* or merely *satisfactory.* Curriculum as a fixed plan does not provide a space where *who* we are is revealed. "In acting and speaking, men show who they are, reveal actively their unique personal identities and thus make their appearance in a human world" (Arendt, 1958, p. 179). The *who* of our students remains unrevealed in a curriculum that is set and fixed, for in such a curriculum the active revealing of ourselves is uncalled for. For the purposes of coding, evaluation, and even in the case of parent-teacher dialogue, the *what* of our students becomes paramount.

The fragmentation of curriculum, the treatment of work as if it were unconnected to the life of the student, and the ideology that underpins our images of what childhood is and who students are comprise a powerful narrative with equally powerful implications. In a fragmented, alienating curriculum, students are seen as powerless, their lives and voices cast out of the classroom, confined to whispers, smudges, and secret notes. Fragmented curriculum turns from the toil of life to the neatly planned and orchestrated tones of fill-in-the-blank workbooks, timetables, disconnected subject areas, and long-range plans. It moves from the ambiguities spawned by deep ecological interconnectedness toward a headed scientific pristineness, knowing, assured, and untroubled. The movement toward "Back to the Basics," for example, illustrates that as curriculum is fragmented, the resonance of a greater interconnectedness to life, to our own lives, is fundamentally severed. As Solway (2000) comments, "In the name of Back to the Basics ... students are progressively and systematically alienated from ... the material content they are meant to take in, leading to a kind of intellectual anemia" (p. 27). The potential for the work of the student to change life is stultified by an epistemology that suggests that all that exists is known already. Like the "invisible and silent" children on Mount Sinai on the day of the Revelation, so many decisions made on behalf of children are made without consulting them or without considering that they might have something to say about our lives together (Block, 2000).

> There is no such thing as a neutral educational process. Education either functions as an instrument which is used to facilitate the integration of the younger generation into the logic of the present system and bring about conformity to it, or it becomes "the practice of freedom" the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world. (Schaull, cited in Freire, 1983, p. 16)

The function of education is to awaken the intelligence of the students, to invite them into a dialogue with the curriculum in a manner that does not regard them as merely a participant, but rather as a member of something greater than themselves (Palmer, 1998). Curriculum is multifaceted. It is as much those plans that foreclose on inquiry and renewal as is it the possibility that it might be about us and our living relationship to those ancient disciplines that come to face both ourselves and our students. The face of curriculum is a

mirror image of our own ability to greet life as a horizon where the new and old meet, or where newness (and so interpretation) is put to rest, "abandon[ing] its responsibility to the young" (Jardine, 2000, p. 142).

Implications of the Tylerian Rationale

Modern conceptualizations of curriculum have borrowed much from the scientistic beliefs of the 17th and 18th centuries, using the ideas and findings bolstered predominantly by the physicists and mathematicians of the time as if they were applicable metaphors to teaching and learning. Consider the far-reaching educational impact of Francis Bacon's assertion that our environment should "be put in constraint," and further, that the highest function of a scientist should be to "torture nature's secrets from her" (Capra, 1982, p. 56). Such an analytical and systematic point of view was further developed by René Descartes, who asserted that there was but one absolute truth, the Cartesian view. Descartes' view places experience outside the realm of authentic knowing, suggesting that "the essence of human nature lies in thought" (Capra, 1982, p. 59). In Descartes' opinion, everything is to be doubted except the subjective mind of the thinker himself or herself, who through deduction and pure reasoning can come to true, untainted knowledge. The dominant machine metaphor perpetuated by thinkers like Bacon and Descartes assumes that the world is predictable, ordered, servile, and easily understood by reducing even the most complex phenomenon to its constituent parts (Gleick, 1987).

The Tylerian rationale, inspired by the scientific rationalism of the 17th and 18th centuries, focuses heavily on the organizational goals of the school, as well as on the methodology by which these goals are achieved (Doll, 1993). In his framework Tyler (1950) industrializes education through his valuation of efficiency, authority, and overt control. The voice of the student and the possibility for generativity is observably absent from the Tylerian framework: the vision of the school is imposed from *without* as opposed to developing from *within*. Take, for example, Tyler's primary curricular question: What educational purposes should the school seek to attain? From this essential question we might envisage the development of a curriculum that is efficient, clear, and well organized; that values order, certainty, and effectiveness. These values hark back to Bacon's call for, as Aoki suggests, the "intellectual and technical control of the world" (Doll, 1993, p. 54). This will to control emerges as a curriculum bent on certainty, order, and discovery rather than creativity or imagination. The experience of students is thus predetermined and made superficial by the fact that knowledge may not be constructed, but only uncovered. The generative idea of living in experiences suggests that educational goals lie within the act of learning, between the relationships of the learners, and in the context of the classroom. The construction of knowledge implies the action of local dialogue, necessity of interpretation, reflection, and the valuation of students' voices and experiences. By treating our own lives as a source for learning and sharing, we humanize the curriculum, we own it, we are it, and it is us. Zen master Suzuki (1999), in dialogue with his students, suggests that "practice is not to collect things and put them in your basket, but rather to find something in your sleeve."

Finding Something in your Sleeve

> A monk told Joshu: "I have just entered the monastery. Please teach me."
> Joshu asked: "Have you eaten your rice porridge?"
> The monk replied: "I have eaten."
> Joshu said: "Then you had better wash your bowl."
> At that moment the monk was enlightened.
> (Excerpt from "The Gateless Gate," Reps & Senzaki, 1998, p. 48)

There is no single correct understanding of the above Zen koan, a riddle-like narrative designed so that it cannot be fully understood by way of linear, rational thought. Our own personal interpretation of this particular Zen koan is analogous to generative curriculum in that it suggests, as Joshu does, that true learning is not something that can be merely transmitted: it must be *experienced.* Further, experience is not apart from life, but is life, and in the case of the koan is not separate from the seemingly mundane activities in which we participate throughout the day. Taken literally, washing a bowl is a study in the mathematics of volume, the science of temperature, the physics of water flow, and the health of cleanliness and care for our belongings: "The world itself is multiple and generative in its facets" (Jardine, 2000, p. 144). Although each of these factors is perceived to be whole during the act of washing, the experience of cleaning a bowl is innately fecund, however seemingly ordinary (Wallin, 2000). It is in the seeming ordinariness of our lives that ambiguity, difficulty, and precariousness erupt, skewing our sense of what we thought was fixed and known. In the face of this newness, our traditions are not abandoned, but are cast anew, requiring us to remember that ambiguity, difficulty, and precariousness are required facets for both learning and understanding. In a phenomenological turn, the world makes room for us in the seemingly ordinary, inviting us into its fold, affording the opportunity for tradition and newness to meet in a space of negotiation and rebirth (Jardine, 1998).

The science of chaos alludes to the idea that beneath a surface simplicity, something stunningly complex may be concealed (Briggs & Peat, 1999). Philosopher Zohar (1994) suggests that through the process of existing in and making meaning of our world, we are thrown headlong into experiences where there is always more to observe, more to discover, and more to real-ize. The interpretation of the term *real-ize* might suggest that through experience, we test our constructed meanings authentically by living them out. Generativity invites the curriculum to emerge from our broad, multidimensional life experiences by giving them relevance and the opportunity to be explored. Generativity "curriculum [should] be viewed not as a set, a priori 'course to be run,' but as a passage of personal transformation (Doll, 1993, p. 4). As Whitehead (1967) suggests, where life is not the source of the curriculum, truly transformative and revolutionary learning is suppressed and stultified.

As educators we should consider the implications of seeking out educational experiences when truthfully we are ceaselessly embedded in them. I would suggest that our search for flashing-light curricular moments may in fact cause us to look past the natural curiosities inherent in curriculum and to walk unknowingly past the opportunity to construct a lived curriculum. Perhaps it is time to begin to search for and build on the natural richness and

wonder of the larger human experience as it lives in the very subtleties that shape our daily work with children. This natural richness can only evolve from opportunities to question, theorize, wonder, doubt, discuss, and imagine. This natural richness exists in the mandated Alberta curriculum itself. This richness is not solely dictated by content, but rather by process. It is the manner of the process that determines whether a child sees himself or herself as a poet, a mathematician, or a scientist and consequently takes his or her work up in this fashion. It is the process of the learning and exploring that brings us into concert with a larger human experience. Curriculum ceases to be *lived* when it becomes a boxed set of facts, histories, and meaningless names simply to be memorized and recited.

These moments of curricular richness are often difficult to capture in words while honoring their true depth. It is nearly impossible to describe the look of wonder as it appears on a child's face, or the sense of tension felt in a classroom as children explore differing viewpoints or opinions. However, it is essential to make an effort to provide some kind of image of this work as it looks outside of theory and in the heart of the classroom. With this in mind, the following vignette is offered as a glimpse into the possibilities that surround generativity.

As I approached a lesson about developing a sense of odd and even numbers, I wondered how understanding this concept could become more of a lived experience for my grade class 1/2 as opposed to an incident of the teacher simply passing on knowledge. With this thought in the back of my mind, I constructed a diagram that I believed would assist the children to understand the criteria by which we decide if a number is even or odd. I was hoping that the diagram would initiate some conversation while I demonstrated a problem-solving strategy. While working with the children, I drew two human figures on the board and explained that if I had four cookies to give to these figures, then each would receive two, leaving zero. Thus four could be classified as an even number. As a class we talked about this theory and tested this knowledge using a variety of numbers. Most of the children accepted this explanation readily after working through a few practical problems. However, one boy immediately jumped up and declared, "Yeah, well, I have my own theory about these numbers, and I'm not so sure that your theory is right!" Despite my hope of drawing the children into dialogue, I was initially caught off guard by this boy's strong conviction and felt a little uneasy. I then reminded myself of the numerous conversations that we had shared as a class about the concept of theorization and the work of mathematicians. I realized that something was happening that was truly generative and rich. This boy had the courage to stand up and say, "Hold on, I have my own ideas here." In essence he was becoming a mathematician rather than remaining a passive learner. I asked him to explain his theory to the class. He confidently approached the board and drew three figures and victoriously announced that, using his theory, the number four would be proven to be an odd number because there would be one left over. He then demonstrated that he could come up with a list of "even" numbers that would be entirely different when compared with my list of "even" numbers. This immediately threw the class into commotion as students became divided as to which theory to accept—Mrs. Graham's or David's. This also threw me into a state of uncertainty as to what my role had

suddenly become. After all, I have an obligation as a teacher to ensure that my students understand the mathematical fact underpinning the categorization of even and odd numbers. On the other hand, if my goal is also to encourage children to become mathematicians who question, theorize, and work with numbers, then how could I in good conscience dismiss this boy's theory by insisting that my theory was indeed the correct one? I suddenly realized that I had the opportunity to enable David to knock down some of the traditional boundaries that serve only to diminish the natural wonder and inquisitive nature of humankind. With the boundaries dissolved, David was able to see mathematics not as a static, fact-riddled subject to be uncovered, but rather as an experience rich in questions and ideas that could be challenged, played with, and ultimately transformed. In short, we had moved away from the black and white of the lesson and into a rich and powerful area of grey.

With all this in mind, I decided to leave our discussion with the class to ponder and play with overnight. That night I wondered with colleagues how I could honor the generative moment that had occurred and still help the children to understand the difference between even and odd numbers.

The following day we returned to the board and drew a diagram explaining "Mrs. Graham's theory" and one explaining "David's theory." We then consulted a mathematics text, which suggested that the number 48 should be classified as an even number. The two theories were thus put to test in reference to this problem of categorization. For an entire hour and a half, my grade 1/2 class played with numbers, questioned, theorized, drew diagrams, and even debated among themselves as they worked between the two theories. Eventually, the class came to the conclusion that the first theory best indicated which numbers were to be classified as odd and which even. David's theory, however, did not simply disappear into irrelevance. Rather it became a highly respected living memory of one of the most exciting math explorations that we shared throughout the year. In fact David's theory resurfaced several times throughout the year in response to other explorations and questions (or when other children developed their own theories). At the end of the year, when the children were asked to reflect on their mathematical experiences, many recounted the day we worked with the two theories. Perhaps most telling was David's final reflection about his mathematical experiences: "Math is challenging and fun and it is about my theories."

What better way to learn about mathematicians than to walk in their footsteps, taste their struggles, and triumph in their discoveries? As with any human experience, generative curriculum needs to begin somewhere. Whether it is through conversation, sharing examples, or a simple event, where it begins inevitably shapes where it will go. Although the above example begins with the teacher, it thrived and took shape as it was negotiated by children. The above vignette is undoubtedly a starting point: a starting point rich in dialogue, participation, and sensitive teaching. The seeds of interest were sown, and the children had a taste of the experience of being a mathematician. Having had the opportunity to live in a moment as mathematicians, they explored and lived their curiosities in ways that could never have been precipitated by a worksheet.

As the following Zen lesson suggests, the true treasures of this world do not lie outside of us to be acquired: they are in us to be revealed through our experiences.

> Daiju visited the master Baso in China. Baso asked "What do you seek?"
> "Enlightenment," replied Daiju.
> "You have your own treasure house. Why do you search outside?" asked Baso.
> Daiju inquired: "Where is my treasure house?"
> Baso answered: "What you are asking is your treasure house."
> Daiju was enlightened. Ever after he urged his friends: "Open your own treasure house and use those treasures." (Excerpt from 101 Zen Stories, Reps & Senzaki, 1998, p. 48)

The Redefinition of Work

The dominant ideology underpinning modern educational practice is laden with assumptions espoused and perpetuated by the highly mathematized thinking of the 17th and 18th centuries. Operating implicitly in our practice, these hegemonies have far-reaching implications not only for our schools, but for our society as a whole. Realizing the potential for curriculum to be approached in a way that is conscious and transcendent of the hegemonies operating in our classrooms requires courage, energy, willingness, and an ever-vigilant self-awareness.

The dominant mechanistic paradigm shifts as we begin to view ourselves as more than cogs in a machine. The power we have to transform perceptions, create relationships, and sustain dialogue is not an illusion. In part we contribute, whether we are conscious of it or not, to the situations in which we live as well as the dominant philosophical ideology that is accepted and practiced in our classrooms. As co-constructors of our situations, we are ultimately tied to what we work together to create. Our responsibility is thus to ensure that our creation reflects our most sincere and informed vision of what education ought to be.

References

Arendt, H. (1958). *The human condition*. Chicago, IL: University of Chicago Press.
Block, A. (2000). *From Sinai to the water gate: Curriculum stories*. Unpublished manuscript.
Bohm, D. (1985). *Wholeness and the implicate order*. London: Routledge.
Briggs, J., & Peat, D.F. (1999). *7 life lessons of chaos*. New York: HarperCollins.
Capra, F. (1982). *The turning point: Science, society, and the rising culture*. New York: Bantam.
Doll, W.E., Jr. (1993). *A post-modern perspective on curriculum*. New York: Teachers College Press.
Edwards, C., Gandini, L., & Forman, G. (Eds.). (1998). *The hundred languages of children: The Reggio Emilia approach*. Greenwich, CT: Ablex.
Freire, P. (1983). *Pedagogy of the oppressed*. New York: Continuum.
Gleick, J. (1987). *Chaos: Making a new science*. New York: Viking Press.
Jackson, P.W. (1968). *Life in classrooms*. Chicago, IL: University of Chicago Press.
Jardine, D. (1998). *To dwell with a boundless heart: Essays in curriculum theory, hermeneutics, and the ecological imagination*. New York: Peter Lang.
Jardine, D. (2000). *Under the tough old stars: Ecopedagogical essays*. Brandon, VT: Solomon Press.
Marx, K. (1977). Economic and philosophic manuscripts. In Tucker, R. (Ed.), *The Marx-Engels reader* (pp. 12-13). New York: Norton.
Palmer, P. (1998). *The courage to teach: Exploring the inner landscape of a teacher's life*. San Francisco, CA: Jossey-Bass.
Reps, P., & Senzaki, N. (1998). *Zen flesh, Zen bones: A collection of Zen and pre-Zen writings*. Boston, MA: Tuttle.
Solway, D. (2000). *The turtle hypodermic of sickenpods: Liberal studies in the corporate age*. Montreal, QC: McGill-Queen's University Press.

Suzuki, S. (1999). *Branching streams flow in the darkness: Zen talks on the sandokai*. Berkeley, CA: University of California Press.

Tyler, R. (1950). *Basic principals of curriculum and instruction*. Chicago, IL: University of Chicago Press.

Wallin, J. (2000). Beyond modernism: Emergence and chaos in curriculum. *Early Childhood Education, 33*(1), 30-34.

Whitehead, A.N. (1967). *The aims of education*. New York: Free Press.

Zohar, D. (1994). *The quantum society: Mind, physics and a new social vision*. New York: William MorrowRefer.