The Khepera Method Approach to Project Based Learning: An Introduction

By

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The Khepera[1] Method approach to Project Based Learning (KM-PBL) is anchored in the assumption that education has the transcendent purpose of improving individual wherewithal in a transformative manner that creates community. This assumption is developed in ways that are similar to character education, culture based education, and most assuredly project based education itself. Before developing these connections, I need to provide a descriptive definition of the Khepera Method. Later in the introduction, I will provide an operational definition of the Khepera Method.

The Khepera Method is based on three complimentary ethical concepts,[2] Harmony, Wisdom and Power. These concepts are defined as follows: Harmony is the process of locating the fulcrum point to balance our desire for personal success and our desire to do something for the common good. Wisdom means the ability to use both objective and intuitive modes of knowing in order to create meaning, and in order to analyze the various expressions in which meaning is manifested. Power is the ability of the individual and/ or community to make change in a manner that demonstrates our interconnectedness. Within the Khepera Method framework, the exercise of Harmony and Wisdom is a prerequisite for the exercise of Power.

Like the Khepera Method, character education has a transcendent purpose: it situates learning in a civic context that requires the individual learner to ethically master content and to use that content in a manner that strengthens civic society. Research concerning the efficacy of character development suggests that it helps students be self-reliant and to associate learning with community building.[3]

As described above, character education is similar to my concept of Harmony. In both instances, learning means both individual development and it situates that learning in the context of community responsibility. However, character education is not as operationally dynamic as Harmony. The process of attaining Harmony requires learning to move the fulcrum point to balance the needs of the individual and the need to do something for the common good. Character education lacks this dynamic dimension and is often presented as a set of unchanging behaviors that become more elegantly rationalized over time.

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[1] "Khepera" is an ancient Egyptian term that means the "infinite power of manifestation." It is chosen because it represents one of humanity's earliest assertions about the limitless potential we all possess as human beings.

[2] Note that examples of the efficacy of character education can be found in research concerning character education.

[3] Marvin W. Berkowitz and Melinda C. Bier, "Research-Based Character Education," *The Annals*, Vol. 591, no. 1. 72-85.

Another way to think about the difference between character education and Harmony is that the former is like analog electronics and the latter is like digital electronics. Analog electronics creates and transmits its products as waveforms that are structurally limited in terms of how much data they can transmit; further, the quality of their transmissions is unreliable; and they degrade over time. By contrast, digital electronics creates and transmits products by re-configuring them as a binary code of zeros and ones. The device used to see and/or hear digital communications re-assembles the binary code that it receives. Digital electronics has several advantages: information can be compressed in a manner that increases the amount of data that can be sent; digitally transmitted data "knows" what it should be when it reaches the end of the transmission and can therefore correct errors that may have occurred during transmission; and finally, digitally produced data does not degrade over time.

Analog character education is unable to handle massive and shifting data inputs, while digital Harmony is ethically able to handle massive and shifting data inputs. As a consequence, character education sometimes gets caught in the straightjacket of "zero tolerance" and makes well-intentioned policies seem foolish, unthinking and even un-democratic. Harmony is like digitally produced data: it is dynamic and seeks to be self–correcting through moving the fulcrum point to account for the fact that life seldom presents itself as an unchanging portrait.

Culture based education is rooted in the common sense proposition that an education grounded in the best traditions of child's history and culture is crucial to said child developing attitudes and actions that can fuel learning. A study published in 2010 concerning the efficacy of Hawaiian culture on the education of Hawaiian students found that culture based education positively "impacts the student socio-emotional well-being; it positively effects math and reading test scores. The study also found that the positive impact was greatest among low income students."[4]

A similar example of how culture based education can improve the academic performance of students is found in research about student performance at the Paul Robeson Academy in Detroit. The Academy has an integrated curriculum that includes the Seven Principles of Kwanzaa, as well as lessons about Ancient African History, the Diaspora, and African American History. The cultural and historical content are not taught as discrete subjects; rather, they are integrated into the Sciences, Language Arts, Social Studies, Mathematics and Humanities. Given our national concern about the achievement gap, and particularly those discrepancies related to economics, it is worth noting that 92% of the Paul Robeson Academy students qualify for free and reduced lunch; 75% live in a single person head of households, and 92% live in poverty. The academic performance of these students exceeded the national and state averages in Math and Language Arts, including Reading and Writing. The majority of students have scored

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[4] Brandon Ledward, et. Al, "Culture-Based Education and its Relationship to Student Outcomes,"
Kamehameha Schools Research-Evaluation Division
(*www.ksbe.edu/spi/PDFS/CBE_relationship_to_student_outcomes.pdf*)

in the 75th percentile each year with over 20 per cent in the 90th percentile.[5]

Within the Khepera Method framework, culture based education is consistent with the concept of Wisdom. This consistency is based on the assumption that all cultures approach the world from dual perspectives: one that is more empirical and scientific, and the other that is more intuitive and creative. Culture based education provides a way for the intuitive and creative modes of constructing, evaluating, and ultimately validating information to occur. As noted earlier, the empirical-scientific approach to life and learning is what structures most American and western education: it is an approach that hinders the intuitive-creative development of all students, but particularly the development of African American students who do not see themselves reflected in either the methods or the content taught to socialize them into both American culture and the larger world culture.

Part of what differentiates culture-based learning from Wisdom is that the latter is part of a universal system intended to create, evaluate and implement meaning. Because it is part of a system—the Khepera Method—it is not a solitary assertion made without a context or a framework. Therefore, Wisdom is free of having to defend itself against essentialist criticisms that are often directed at culture-based education. Wisdom resides in the best traditions of all cultures, but it can only be mined through approaches that both go beyond our singular attachment to the empirical-scientific approaches to learning, and that filter both the scientific and creative approaches through the best traditions of those being taught.

Project Based Learning is a method of learning by doing that is connected to a real life challenges and opportunities. Over time, theories have been attached to this common sense proposition: constructivism (the idea "that individuals construct knowledge through interactions with their environment, and each individual's knowledge construction is different"), constructionism ("that individuals learn best when they are constructing an artifact that can be shared with others and reflected upon, such as plays, poems, pie charts or toothpick bridges") and other theories. The Buck Institute for Education defines Project Based Learning as "an extended process of inquiry in response to a complex question, problem, or challenge. Rigorous projects help students learn key academic content and practice 21st Century Skills (such as collaboration, communication & critical thinking)."

With the preceding definitions in mind, the Khepera Method approach to project based learning has the following characteristics: it is constructivist; it is constructionist; and from a methodological standpoint, it uses action research, appreciative inquiry, and the scientific method. As defined by the Buck Institute and others, project based learning is similar to my concept of Power. Both view education as anchored in real-life projects, the execution of which is intended to transform the individual and her/his community. What distinguishes the Khepera Method approach to Project Based Learning is the ethical

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[5] Patrick Coggins and Shawnreece D. Campbell, "Using Cultural Competence to Close the Achievement Gap," *Journal of Pan African Studies*, vol.2, no. 4, 44-59.

dimension of transformation: thus the transformative dimension of Power of valid because said Power is possible through the exercise of Harmony and Wisdom Harmony, Wisdom and Power are the foundation for all the work. The specific ways in which these three ethical concepts are used to develop learning opportunities are presented below. Before developing that discussion, I want to situate the philosophical framework of the Khepera Method in the tradition of western education.

The assumptions that led me to make ethical considerations and the worth of the individual in the context of community the foundations for education are not unique. Similar assumptions have structured the work of various educators: Maria Montessori stressed the importance of structured environments to help children reach their highest spiritual, physical, emotional, and intellectual potential as members of both a family and of a world community. John Dewey believed that schools were not only a place to gain content knowledge, but also a place to learn how to live. Paulo Freire believed in a from of educational democracy that situated learning in the context of the individual's community and culture. For Carter G. Woodson, education is the foundation of self and racial knowledge necessary for the individual to be mentally, spiritually and intellectual whole—only then can said individual contribute to society. Marva Collins makes a similar point when she says, "I am convinced that the real solution (to poverty, violence, drug abuse) is education. We have to teach children self-reliance and self-respect." And from the same framework, Martin Luther King, Jr. notes, "We must remember that intelligence is not enough. Intelligence plus character - that is the goal of true education. The complete education gives one not only the power of concentration but worthy objectives upon which to concentrate."[6] In each case, the assumption is that education is about far more than the transmission of information. For these and similar educators, the ethical and transcendent development of the individual in the context of community is what education is fundamentally about.

I have used the concept "transcendent" several times. It is a potent concept often used in philosophical, ethical and religious writing. Because this concept is important to the way I am defining education, I want to be clear about how I am using it. I will make my intensions clear by comparing the use of "transcendent" in philosophical, ethical and religious writing to my use of the term.

The denotative meaning of transcendent is any phenomenon that "surpasses the ordinary" and is in some way exceptional. In religion, the concept generally "refers to the aspect of God's nature that is wholly independent (and removed from) the physical universe." [7] From the standpoint of the 19th century philosophical movement of "Transcendentalism" transcendent means "a philosophy that asserts the primacy of the spiritual and transcendental over the material and empirical." [8] The dichotomy between the physical world that is known through empirical means and a metaphysical world that is known

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[6] See http://public-groups.nea.org/discussion/topic/show/463390?page=1#message_608611
[7] http://en.wikipedia.org/wiki/Transcendence_%28religion%29
[8] See http://www.merriam-webster.com/dictionary/transcendentalism

through intuitive, creative and / or spiritual means is central to the way I am using transcendent.

The Khepera Method embraces both the physical and the metaphysical world as expressions of a single world, a world that is most fully known through the application of Harmony, Wisdom and Power. So within KM-PBL framework, the "transcendent" purpose of education is to provide the structured opportunity for individuals to learn and use the methods and content associated with both the physical world and the metaphysical world. By embracing the skills, content and methods of both worlds KM-PBL education intends to "surpass the ordinary" processes of education.

Howard Gardner's concept of "multiple intelligences" provides a different though corroborating way to think of my assertion that education ought to develop both empirical-scientific and creative-intuitive ways of knowing and creating reality. Gardner defines intelligence as "a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture."[9] With this definition in mind, he identifies eight different intelligences: spatial; linguistic; logical-mathematical; bodily-kinesthetic; musical; interpersonal; intrapersonal; naturalistic. [10]

The linguistic, logical-mathematical, naturalistic, and perhaps spatial intelligences can be placed into my category of empirical-scientific. The rest of Gardner's intelligences can be placed in my category of creative-intuitive. My choices are of course arguable, but my goal is not so much to make definitive assertions about the placement of Gardner's multiple intelligences as it is to concur with Gardner's central points: 1) that most American education organizes itself around two intelligences—linguistic and logical-mathematical; and 2) that education organized in this manner is not capable of assisting children in developing the other intelligences—in fact, education organized only around linguistic and logical-mathematical approaches may work to under-develop students. These points are consistent with my assertion above about the limitations of education that derives its content, methods and modes of evaluation only from empirical-scientific ways of constructing meaning in the world.

SUMMARY: The prevailing approach to education in America does not embrace content and methods from both the physical world and the metaphysical world. The American approach to education is anchored in the physical world. It is a pragmatic approach that reduces learning to units that can be easily measured. Abundant research attests to the disconnect between an individual's performance on tests, and that individual's ability to live a life in which both individual abilities are developed and balanced with the need to contribute to the common good. Harmony is neither a goal nor part of the educational process in America. To be sure, American education, the memes it

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[9] Gardner, Howard (1999). *Intelligence Reframed: Multiple Intelligences for the 21st Century*. (New York: Basic Books), pp. 33-34.
[10] Gardner, pp. 27-46, See also J.A. Christodoulou (2009), "Applying Multiple Intelligences." *School Administrator,* vol. 66. *2*, pp. 22-26.

has conceived and had nurtured through various media provide assurances that we are the "united" states of America. We are simultaneously a melting pot, a salad bowl and a multicultural nation. We have the creative artifacts to support these memes.

Yet, at all levels of institutional society (education, politics, economics, creative and expressive art), discord is the norm and cacophony is the universal language. My assertion is that we have not been taught how to create Harmony. We are not taught how to move the fulcrum point between our desire for self-development and our desire to do something for the common-good. America is out of balance and our educational system—replete with reforms, funding competitions, tough-guy tactics to whip teachers into line, the rending of garments and the gnashing of teeth at achievement gaps, disappointing parental involvement, etc.—is transfixed in a Zombie trance that confuses life with death.

American Zombie education proceeds as it must because it only sees the world, develops its lessons and assessments from the perspective of two of the eight intelligences that Gardner identifies—and those are linguistic and logical-mathematics. These two live in the realm I identify as empirical-scientific. Arms outstretched, parallel to the ground, feet shuffling along a "dusty road"[11], American Zombie education is instinctively looking for its Wisdom anecdote: the ability to use both objective and intuitive modes of knowing in order to create meaning, and in order to analyze the various expressions in which meaning is manifested.

Educational accountability requires assessment. But the kinds of assessments necessary to determining those Gardner identified intelligences that are not linguistic or logical-mathematical requires a fundamental reordering of education. A further reordering of education is required when Wisdom as defined within the Khepera Method is a focus of education. Paper and pencil tests administered in sterile environments meant to mimic a laboratory are not the best measure to assess creative-intuitive ways of creating meaning. Observation, interviews, discussions, structured tasks; learning projects are all methods that have been used to assess creative-intuitive intelligence. But these modes of assessment would tear down boundaries and destroy myths—space would be redefined, and hierarchies would be defined in terms of their value in helping a child reach her/his potential in a manner that contributes to the community. Until this happens, American Zombie education will continue shuffling down that "dusty road." If you listen closely, you can hear—and perhaps that American Zombie Education can hear—the ancestral chorus riffing off Sam and Dave's "Soul Man:"

> Got what I got the hard way
> And I'll make it better each and every day
> So honey, don't you fret
> 'cause you ain't seen nothing yet….[12]

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[11] I am using "dusty road" in the same way that Sam and Dave use it in their iconic song, "Soul Man." The "dusty road" signifies a path to authenticity—the real deal.
[12] Downloaded on 10 December 2011 from http://www.metrolyrics.com/soul-man-lyrics-sam-dave.html

With billions of dollars of private, public and foundation money at its disposal, American education is powerless to create consistent results even among those students who are most privileged. Once the envy of the industrialized world, how can this juggernaut now lick its wounds of failure with ever more eloquent rationalizations? A common sense answer is that the world has changed and is changing and American education refuses to change. For we are a nation blessed with natural and human resources in such abundance that we live without regret in our margins of error. Marcuse warned of the "one dimensional man" who is incapable of critical thought and action, and, more recently, Friedman wrote in detailed ferocity that, "the world is flat." In the former instance, we have been ideologically and materially seduced into operating against our own best interests, and in the latter the tsunami of information technology has submerged the world as a single network that requires everyone to bring their "A Game." But I want to suggest another reason why American education is powerless. I noted above that within the Khepera Method Harmony and Wisdom are necessary to exercise Power—the ability to responsibly transform oneself and one's community in a fashion that demonstrates our interconnectedness.

America needs an ethical approach to education that embeds learning in real-world challenges and opportunities. That approach must embrace both empirical-scientific and creative-intuitive ways of creating, implementing and assessing meaning. The Khepera Method Approach to Project Based Learning is one such approach. It is offered in a manner that acknowledges and builds on the work of others, and it is offered to stimulate others.