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## CURRICULUM AND ARTS INTEGRATION AS AN AGENCY OF CHANGE

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# Transforming education through art-centred integrated learning

### ABSTRACT

*Art-centred integrated learning is a version of art integration that uses art enquiry processes to promote deep and holistic understanding of concepts and ideas that matter to our students while fostering their abilities to handle complexity and think flexibly, capacities they will need in order to prosper in a complex and uncertain world and become leaders in shaping that world. To meet these needs of their students, the Alameda County Office of Education in Northern California has adopted Integrated Learning, an approach to education that promotes integrative thinking and integrated knowledge through art-centred learning. Because Integrated Learning presents solutions for education across the board, it provides a model that leaders in general education could consider when formulating pedagogy. And since this model draws from contemporary art practices, it provides both education in the arts and a strong rationale that art education leaders can use to argue for a robust presence of the arts in education. Moreover, the Integrated Learning approach delineates a set of principles and practices that are germane to creative leadership and could be integrated into leadership education.*

### KEYWORDS

art-centred integrated  
learning  
art integration  
creative leadership  
creative enquiry  
through the arts  
systemic change in  
education  
arts in education in  
Northern California

1. PZ is an educational research group at the Harvard Graduate School of Education. Begun in 1967, PZ investigates learning processes in children, adults and organizations. Its many projects include investigations of creativity, understanding, thinking and intelligence ([www.pz.harvard.edu](http://www.pz.harvard.edu)).

Equipping every child to thrive in a world of perpetual change and increasing complexity is the challenge of our time. How do we transform education to meet this challenge? How do we motivate and empower young people to participate in and shape the world – to become ‘change leaders’ (Fullan 2011)? Likewise, what good ideas from K-12 education can we apply to leadership and the education of leaders?

Change requires rethinking priorities. The new Common Core and New Generation Standards, which redirect the focus of education away from rote learning towards grasping concepts and building thinking skills, represent one welcome change. While transformation demands a fundamental rethinking of what students learn in school and how they perceive what is worth learning (what the standards purport to do), it also requires adopting pedagogies that reach all students. Indeed, it is time for alternative models that help students meet the new standards and thrive now and in the future – as full participants in the world and as future leaders who can shape that world. This article explains a model, Art-Centred Integrated Learning, designed to meet this K-12 challenge, which we believe also provides good ideas for leadership education. This is a model in progress, but it is already transforming the way we teach, how students learn and how we, as leaders, make necessary, systemic and meaningful change in education in Northern California.

## INTEGRATED LEARNING THROUGH ARTS-CENTRED LEARNING

The Department of Integrated Learning of the Alameda County Office of Education (ACOE), which oversees seventeen school districts in the East Bay Area of Northern California, has adopted a new approach called Integrated Learning that guides their thinking and practices across the board from county-wide policy to the nuts and bolts of classroom practice.

The following is an explanation of the Integrated Learning approach and what drives and supports it. We begin with a core building block of the approach, the concept of understanding, and we explore how understanding can be fostered through art-centred learning, the primary method the approach employs.

## UNDERSTANDING AND ART-CENTRED LEARNING

Things that matter – from ideas and issues, to events and people, to culture and values – are complex. The capacity to understand and embrace complexity is critical to our well-being and a productive, fulfilling life in our intricate, inter-related and fast-paced world. Complexity is characterized by perpetual change and uncertainty (Wheatley 2006). Coping with change and an uncertain future requires flexibility of thought and action to deal with complexity – to navigate it and sort through it to focus on what matters. Therefore, the core capacities required of us all are grasping what matters and the complex nature of things along with being flexible in dealing with them. These are the skills our young people need if they are to thrive in the present and the future. Similarly, they are abilities required for effective leadership (Fullan 2011; Wheatley 2006).

Building these capacities begins with going beyond mere learning information, to going beneath the surface of it to discern its meaning and implications, that is, to understand it. The Integrated Learning approach takes its insights into understanding from Harvard’s Project Zero’s (PZ)<sup>1</sup> Theory of Understanding, which directly connects understanding to the core competencies we aspire to foster: grasping complexity and thinking flexibly.

In regard to complexity, Perkins, a principal figure at PZ, defines understanding as seeing something within its 'web of associations that give it meaning' (1988: 114). This denotes connecting an idea or entity to all the things that are related to it, and, in so doing, making one's grasp of it more comprehensive and complex. Understanding, in other words, is grasping the complexity of something – what it is associated with, how it is seen in different ways, how it affects other things and how it is part of a system. It follows that when we practice looking at a phenomenon in an associative systemic way – when we understand it – we become more comfortable with it and this comfort builds over time into an inclination to embrace intricacy, ambiguity and multiplicity.

In regard to flexibility, Project Zero's Wiske (1998) characterizes understanding as the capacity to use information flexibly. That is, understanding is the ability to apply knowledge and skills in different contexts – to take what you know from one area and apply it somewhere else or repurpose it. Understanding, therefore, is directly connected to flexible thinking; it enables flexible thinking, it is a characteristic of it and it is demonstrated through it. Furthermore, flexible thinking generates new understandings; it is essential to exploring subtle or hidden connections.

Since complex understandings and flexibility of thought are so intertwined and generating them is so fundamental to preparing learners for the future, it makes sense that these two elements should constitute the centrepiece of an educational model. What could this new model be? Learning through the arts, or art-centred learning, provides one promising model. Why? Art-centred learning puts connection-making and flexibility of thought and action front and centre, providing multiple creative ways to build complex and flexible understandings.

## COMPLEXITY AND ART-CENTRED LEARNING

How does art-centred learning promote connection-making? Producing art about a topic is a rich and generative way to apprehend or construct webs of understanding and, therefore, to make meaning. This is because interpreting a topic through art processes invites the artist-learner to think about the topic more deeply, expansively and personally while he or she devises a subjective response to it. Also, since art entails associative thinking strategies, such as constructing analogies and metaphors, a learner can break away from conventional associations to make oblique connections (partial associations that are unorthodox and surprising, but also make sense) that allow him or her to see something from a different, often new and imaginative perspective.

Connection-making is the central mechanism of curriculum integration. Since art practice is such a rich and multifaceted way to make connections, it makes sense to use it to integrate academic concepts and information. Moreover, art is naturally integrative. Unlike more conventional disciplines, art is not confined to particular areas of knowledge; it explores everything. Art-centred learning, therefore, easily transcends disciplinary boundaries to reveal connections and commonalities that conventional academic structures tend to conceal. When we employ art-making processes to make connections across disciplines to deepen, expand and 'complexify' our understandings, art practice becomes integrated learning through art-centred learning.

Integrating knowledge – understanding how it all connects – is essential to K-12 education. So is understanding and embracing complexity. Fullan (2011) and Wheatley (2006) argue that effective leadership requires integrated and complex understandings of all things related to organizations and leadership.

Since art-centred enquiry fosters these things, we need to infuse it into K-12 classrooms. Similarly, highlighting integration and employing art-centred enquiry in leadership education could build the kinds of thinking and dispositions we look for in leaders.

## **FLEXIBILITY AND ART-CENTRED LEARNING**

How does art-centred learning help students become flexible thinkers? In art-centred learning, students apply knowledge in multiple, imaginative, flexible and often unscripted ways. In doing so, they play with ideas, they question them, they experiment with them and they transform them. This they do as part of their enquiry. Artists enquire and, since enquiry is a venture into the unknown, it is a particularly supple approach to learning and doing. In their enquiry, artists ask questions that are probing and open-ended, and they do not often know where their enquiries will take them. Because art enquiry is primarily fluid and open-ended, artists must be flexible; they must embrace uncertainty and improvise. Improvisation, which includes being aware of one's opportunities, responding to occurrences and situations as they pop up, making impromptu decisions, learning from mistakes, and not being discouraged along the way, builds self-reliance and confidence.

Art enquiry provides a flexible structure for developing all of these skills and dispositions young learners need. Furthermore, these are the skills leaders require to solve complex and subtle problems, and to envision possibilities (Wheatley 2006). For these reasons, art-centred learning should be included in education at all levels, from pre-K to leadership education.

## **ART-CENTRED LEARNING VERSUS ART INTEGRATION**

So far I have used the term 'art-centred learning' instead of the more conventional term 'arts integration'. I do this intentionally because arts integration is such a nebulous term. Art-centred learning and arts integration are somewhat interchangeable terms. Art-centred learning, however, is clearer and more concrete – and it emphasizes learning. To most people, arts integration denotes using the arts to depict academic content in visual, kinaesthetic, musical or narrative forms. This is the simplest meaning of the term. Arts integration could also signify a far more expansive and meaningful practice: exploring academic content (ideas, concepts and information) and looking at it through the lens of art. While arts integration could imply these things, the term 'art-centred learning' seems a more fitting encapsulation of them.

Distinguishing between the illustration of content and exploration of it through an arts lens may seem like nit-picking, but this difference has broad implications; it shifts our understanding of the arts away from seeing them simply as a means of display and a way to depict content, to viewing them as forms of enquiry – as ways to enquire into content, to question that content and to perceive it differently. When we view art as enquiry, we also can see its capacity to tackle the disciplines themselves – to enquire into why and how different domains construct content. Opening up the lens of art in this way enables us to direct art-centred learning towards practice – towards generating consciousness, not just of knowledge and concepts, but also of how scholars, researchers and practitioners have constructed and continue to construct knowledge through the various disciplines, including art. Indeed, approaching art as a means of enquiry can lead to a metacognitive art-centred learning that taps into the curiosity, the passion, the process and the craft that are inherent in all areas of enquiry.

## LEADERSHIP, PRACTICE AND ART-CENTRED INTEGRATED LEARNING

How does integration through art-centred enquiry connect to leaders and leadership? First, education leaders should take the importance of creative experiential enquiry and its benefits into account when setting priorities; they should encourage it. Second, they should understand how deliberate, purposeful creative practice is germane to leadership itself. Fullan (2001) provides three key elements of effective leadership that directly connect to creative enquiry: (1) a disposition towards learning: leaders must see themselves as active learners; (2) learning through practice: leaders must learn by doing, not by following others or by applying theory prior to practice; and (3) awareness of one's learning and actions: leaders must know themselves and be metacognitive in their learning and actions. These are skills, dispositions and knowledge developed in art-centred enquiry. Both Fullan (2001, 2011) and Wheatley (2006) emphasize openness to change, resilience in the face of setbacks and flexibility of thought as key elements in effective leadership – all qualities related to and fostered in creative work.

While Wheatley (2006) and Fullan (2011) emphasize the importance of leaders identifying as co-learners who remain flexible and able to learn from experience, they also expand on this idea to cast successful organizations as flexible, creative systems that learn through experience. Because the art enquiry process manifests flexible, improvisational, progressive learning through discovery and invention in such a tangible, accessible way, and it promotes complex thinking and integration, it should be supported by leaders in K-12 education and also be woven into leadership education.

Fullan (2001) also stresses motivating workers to engage with the work, and this has implications for teachers. He argues that people are motivated to do more when they learn through experience, their experiences are intrinsically purposeful and meaningful, and they acquire skills through that experience that help them develop clarity and coherence (understanding). It follows that allowing young learners to enquire creatively into something of meaning to them and to develop understanding through purposeful play is a smart act of leadership in the classroom. This classroom can be a pre-K classroom or a graduate school seminar in leadership.

## BACKGROUND AND FOUNDATIONS: INTEGRATIVE EDUCATION AND SIGNIFICANT LEARNING

Understanding the cyclical, dialogical relationship between theory and practice is key to good leadership (Fullan 2011). For that reason, I mention here the theory and models that influence our art-centred integrated approach. First, the Integrated Learning model is informed by the Progressive theories and models in education of Johann Pestalozzi (1746–1827), John Dewey (1859–1952), Maria Montessori (1870–1952) and Loris Malaguzzi (1920–1994) that promote experiential, kinaesthetic and student-centred learning. Second, the approach aligns with Social Justice or Culturally Responsive pedagogies formulated by Paul Freire (1921–1997), the father of Critical Pedagogy, and more recently by education theorists, activists and leaders, Geneva Gay (*Culturally Responsive Teaching: Theory, Research and Practice* (2010)), and Mary Stone Hanley (*Culturally Relevant Arts Education for Social Justice: A Way Out of No Way* (2013)). Providing a foundation of theory and practice, these two strands come together to form the basis of a broad comprehensive and coherent vision of education, called Integrative Education, that is the foundation of



ACOE’s approach. Integrative Education denotes a holistic system of knowledge and pedagogy that encompasses not only the intellectual and academic aspects of schooling but also the cultural and personal/emotional facets of it. Ken Gnanakan, the theorist who formulated Integrative Education, states:

Integrative education is defined as education that promotes learning and teaching in non-fragmented ways that embrace notions of holism, complexity, and interconnection. Integrative education rejects the common emphasis on transmitted knowledge. Rather it proposes that knowledge and meaning are constructed by the learner through processes of interaction with others, the material, and the social and physical contexts. Integrative education calls to question the traditional gulfs between teacher and learner, and rejects the divisions between physiology, cognition, and emotion in the learning process. Furthermore, integrative education embraces links, rather than divisions, between the academic disciplines and between various subjective and objective epistemologies and methods of inquiry.

(2011: 14)

While Gnanakan supplies the theoretical foundation of ACOE Integrated Learning model, Fink (2013) imparts the specific building blocks. These are the components of what he calls Significant Learning. They are: Integration: connecting ideas, learning experiences and realms of life; Foundational

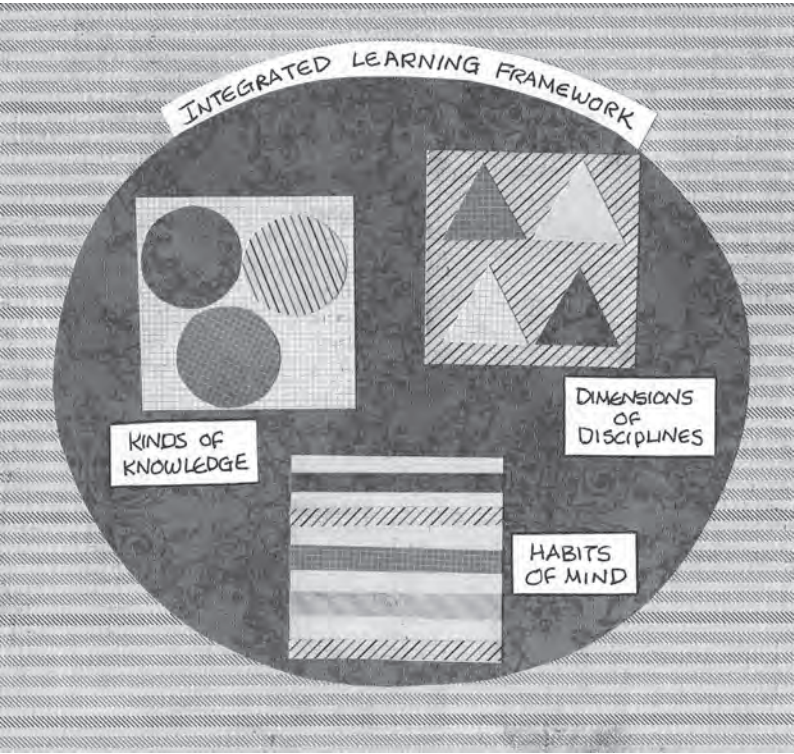


Figure 1: Integrated Learning Framework.

Knowledge: understanding and remembering information and ideas; Learning How to Learn: becoming a better student, learning how to research a subject and becoming a self-directing learner; Application: acquiring skills in applying knowledge and managing projects, and developing skills in thinking critically, creatively and practically; Human Dimension: learning about oneself and others; and Caring: developing new empathy, interests and values.

Just as Integrative Education and the elements of Significant Learning provide a foundation for the Integrated Learning model, they also supply the guiding principles behind ACOE's Integrated Learning Framework, which summarizes the philosophical groundwork for the approach and the practices inherent in it while providing a set of tools for teaching and curriculum development. The three key elements of the Framework are: (1) a multidimensional structure for exploring and integrating knowledge that focuses on the why, what and how of the academic disciplines (the dimensions of the disciplines); (2) a delineation of the kinds of knowledge engaged, built upon and constructed in the approach; and (3) a set of habits of mind fostered through Integrated Learning.

## **THE INTEGRATED LEARNING FRAMEWORK**

### ***Part 1 of the Framework: Substantive multidimensional exploration of knowledge and disciplines***

A substantive approach to knowledge requires digging beneath the surface of academic facts and information to investigate the critical ideas, concepts and issues that all disciplines address and the reasons why they attend to them. A substantive or deeper understanding of all knowledge, whether it is of information, 'big ideas' or underlying concepts, also requires knowing where knowledge comes from and how it comes to be. This deeper understanding calls for a multidimensional approach to the disciplines. Mansilla and Gardner (1998) provide a framework for this multidimensional deciphering of the disciplines that they call the dimensions of understanding. According to Mansilla and Gardner, every discipline has four dimensions, which include a purpose for constructing knowledge, a body of knowledge, a set of methods to construct knowledge and an array of forms to represent that knowledge. Breaking disciplines such as biology, English language arts, mathematics, history or art down into these four dimensions shifts the focus towards purpose, while it also highlights practice, allowing students to understand how humans shape and understand knowledge. It also prompts learners to see disciplines as active systems of knowledge driven by passion, curiosity, pleasure and hard careful work.

A corollary benefit to an emphasis on the four dimensions of the disciplines is grasping the nature of knowledge – seeing it not as complete or fixed but as contextual, provisional, changing with the times or evolving towards deeper understandings. Recognizing this important concept has enormous benefits for young learners; it enables them to look critically at academic content and to see it complexly. It allows them to see how integrating what we know – not compartmentalizing it – creates new insights and knowledge. Furthermore, it creates an opening for learners to make new knowledge; it tells them that they too can be constructors of knowledge who can participate in and contribute to the generation of knowledge yet to come. For all these reasons, a multidimensional approach is critical to developing all three kinds of knowledge described below: foundational, integrated and new.



## ***Part 2 of the Framework: Kinds of knowledge***

It is critical to any pedagogy to understand the nature of knowledge and how different kinds of knowledge fit together, interact and build on each other. Starting with Fink's (2013) two forms of knowledge (foundational and integrated), the Integrated Learning approach adds a third kind of knowledge: new knowledge. This delineation clarifies how knowledge, creativity and learning fit together.

1. Foundational knowledge: Knowledge that forms the basis of new learning: academic knowledge and the prior knowledge and understandings that stem from the learner's experience.
2. Integrated knowledge: Understanding of how all knowledge and ways of knowing and learning fit together in a holistic system. Finding common purposes, methods and thinking, knowledge and forms. Understanding how disciplines fit together, their commonalities and differences. Understanding what matters.
3. New knowledge: Knowledge that comes out of foundational and integrated knowledge. This consists of new perspectives, new inferences, new connections and new inventions. Interpreting the known, projecting from the known, inventing based on the known and imagining the unknown. Taking what matters forward. Acting on it. Creative application of foundational and integrated knowledge.

### **FOUNDATIONAL KNOWLEDGE**

An Integrated Learning perspective on foundational knowledge enables us to see why academic learning and students' home knowledge are both important; they set the stage for the two other kinds of knowledge. That is, foundational knowledge is not an end unto itself, but the basis and catalyst for integrated knowledge and new knowledge. Moreover, foundational knowledge is the foundation and springboard for creativity. Indeed, the broader, deeper and more complex foundational knowledge is, the more solid the base, the 'springier' the board. That is why the Integrated Learning approach encourages teachers to incorporate students' knowledge from outside of school in their enquiries, and endorses a substantive multidimensional approach to academics.

### **INTEGRATED KNOWLEDGE**

Integrated knowledge is the next level of knowledge. As noted above, integrated knowledge entails understanding the big ideas, concepts and issues that all disciplines address. It also means understanding their common or similar purposes, methods, forms and practices and how they fit together as a system. Integrated knowledge is extended, expanded and energized by a substantive multidimensional approach to integration. This is because this multi-level approach can reveal cohesion on all levels (purpose, knowledge, methods and forms) using diverse disciplinary methods and thinking to do so.

Finding commonalities and patterns and discerning what matters involves associative thinking and synthesizing – the hallmarks of creativity. The process of integration and developing integrated knowledge is definitely creative. How extensively the process engages knowledge, forms and practices, and how creatively it constructs connections, determines just how incisive and

meaningful the integration can be. This is why we advocate for a multidimensional approach.

## NEW KNOWLEDGE

Constructing new knowledge is where creativity becomes most apparent. New knowledge includes the skills and understandings learners did not previously possess. To gain this knowledge, learners must synthesize and apply what they already know. They must also question established knowledge. Generating new knowledge also calls for inferring, projecting ahead, envisioning and inventing new entities, new ideas and new ways of thinking based on established knowledge. With new knowledge, learners go into the unknown to be proactive and handle uncertainty and the new. New knowledge also includes fresh or transformed perspectives on issues and ideas and new, deeper understandings of others. The viability of new knowledge resides in the breadth and depth of its foundations, the foundational and integrated knowledge out of which it emerges. The creative strength of new knowledge lies in how much it draws from its roots. A substantive multidimensional enquiry makes these roots more expansive and extensive, and accessible.

It may seem from the points above that the relationship between the three kinds of knowledge is hierarchical, with foundational knowledge coming first, integrated knowledge second and new knowledge third. In many ways, this is true; when we begin, we begin with foundational knowledge. However, it is also true that integrated and new knowledge become and/or transform foundational knowledge. Indeed, as learning progresses, the relationship among forms of knowledge becomes ever more cyclical and interdependent. It follows that foundational knowledge evolves over time, adapting and informing new

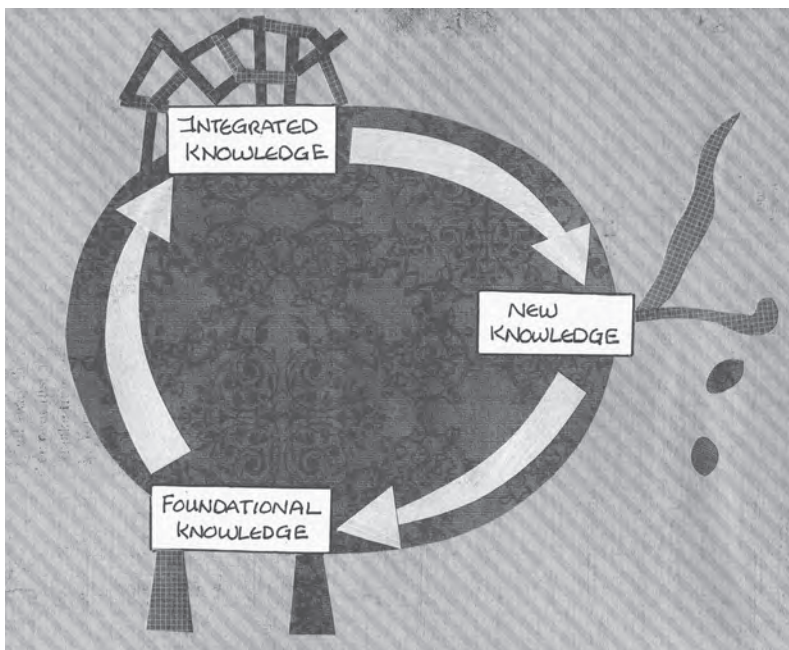
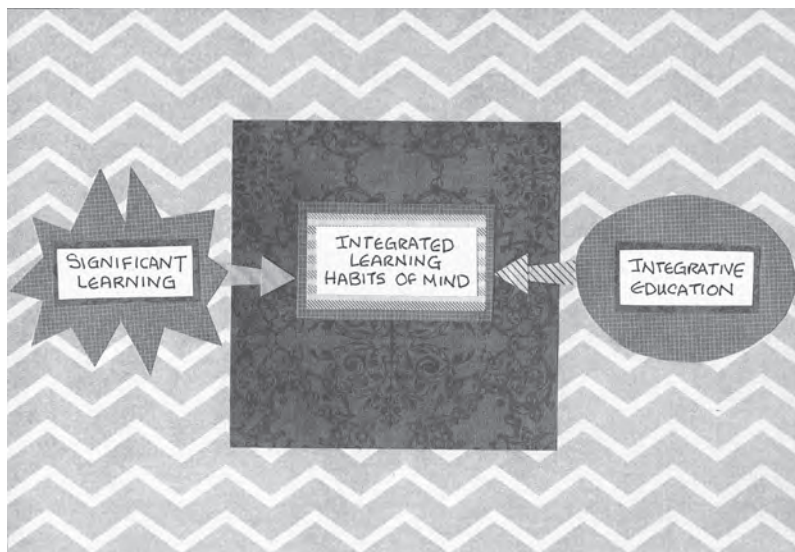


Figure 2: Map of foundational to integrated to new knowledge.



*Figure 3: Integrated Learning Habits of Mind, Significant Learning and Integrative Education.*

ways of thinking and new kinds of knowledge. The intermediate step of integration is critical to this evolution – as is creativity.

Grasping the relationship of the three kinds of knowledge is important for education leaders because it calls attention to the four central principles of education: (1) the essentials of academic knowledge (the big ideas, concepts and meanings); (2) honouring and employing student life experience and knowledge; (3) focusing on the changing nature of knowledge and the complex interconnection of all things; and (4) the importance of learners creating new ideas and perspectives. It also puts systemic understanding and creativity at the core of education, giving students and leaders on all levels permission to teach and learn in open-ended, flexible ways – ways that grow unexpected knowledge. At this time of change, leaders in education must understand this and set up structures that allow for and encourage the new and the unforeseen.

### ***Part 3 of the Framework: Integrated Learning Habits of Mind***

The Integrated Learning Habits of Mind is a collection of dispositions and ways of thinking and doing that expands Fink's tenets of Significant Learning to include the contributions of art-centred learning and the two pillars of understanding: flexibility and connection-making.

#### **THE HABITS OF MIND**

1. Enquire creatively: Investigate open-ended questions through a creative process that employs multi-sensory, aesthetic, imaginative, playful, conscious and intuitive investigations and thinking processes. Apply poietic logic in enquiry. Poietic logic is the braiding of linear/logical reasoning with non-linear/associative thinking (Trueit 2005).

2. Think systemically: Explore common ground and interconnections of disciplinary knowledge, ideas and practices.
3. Understand academic knowledge and disciplines: Have a grasp of significant academic knowledge (information and concepts). Understand the individual disciplines, including the arts, as areas of enquiry: their purposes, knowledge, methods and forms.
4. Make meaning: Find connections between academic knowledge, oneself and life outside of school.
5. Think flexibly: Adeptly apply knowledge and ideas to new contexts.
6. Be open and resilient: Develop curiosity regarding the unknown; engage and navigate challenges, ambiguity and uncertainty.
7. Be metacognitive: Understand and monitor one's thinking and learning.
8. Care: Develop care about issues and ideas and the motivation to act or engage in further exploration.
9. Think independently: Develop and follow one's own personal learning path. Develop autonomy.
10. Work collaboratively and interdependently: Learn from and with others. Be able to research and create with others.

The Integrated Learning Habits' primary innovation is the four habits directly related to creative practice: being open and resilient, working independently, working collaboratively and doing creative enquiry.

## CREATIVE ENQUIRY

Notice that the Integrated Learning Habits cite creative enquiry instead of art production or creation as a habit. I bring this up because creative practice is often seen to be limited to creating a product. The term 'creation' refers to generating a product or inventing and shaping something new. This is a learning process; in constructing a product, the artist-learner solves problems and learns about materials and techniques as well as about the ideas and content embodied or expressed in the output or product.

Creative enquiry is a broader term than creation; it signifies exploring in inventive and imaginative ways. Creative enquiry can take any form or use any method. This means that creative enquiry may include creating a product, but a product is not always necessary. Creative enquiry is the core of the Integrated Learning approach because it goes beyond conventional notions of art production to emphasizing investigation through artistic thinking and means. As noted above in our discussion of flexibility, creative enquiry is a fluid, flexible and generative way to construct knowledge. It is, therefore, an engaging, open-ended alternative to conventional ways of learning that empowers students to learn through discovery and construct knowledge themselves. This allows learners to experience the challenge, joy and satisfaction of breaking new ground or discovering something new.

Furthermore, the Integrated Learning model emphasizes creative enquiry because it is inherent in all disciplines, and, therefore, a common denominator among them. Creative enquiry, then, is a basis of integration and a method for accomplishing it. And it is most innovative when it integrates disciplinary practices – when it appropriates creative strategies and ways of thinking from all the disciplines and creates from them new hybrid methods and ways of thinking. These mixed processes Klein (2000) calls 'interstitial practices'. Interstitial practices spring up on the margins of existing disciplines or in the

spaces between disciplines – in ‘interstitial spaces’. While they exploit disciplinary practices, interstitial practices are not hampered by disciplinary traditions or rules (Klein 2000). The freedom of interstitial practice – working outside and across borders and choosing and mixing methods – enables scholars and practitioners to creatively tackle critical ideas, issues and problems that transcend narrow disciplinary concerns. Art-centred enquiry is a particularly eclectic interstitial practice; it rises out of the arts and education, and it takes its knowledge, methods and forms from both places, and from the academic disciplines (Marshall 2014). Its roots in disciplinary practices and its freedom to penetrate and integrate them make it a powerful vehicle for understanding.

An emphasis on creative enquiry highlights the powerful role of creativity and imagination in learning and building understanding. Meaningful learning and deep, complex understandings are generated through creative play, investigation, interpretation and creation. The Integrated Learning approach, consequently, in foregrounding creative enquiry as a mode for integration and integrated learning, promotes investigatory learning that fuses and plays with practices in all the disciplines, the natural sciences, the social sciences, math and the humanities. Although it is eclectic and inclusive in its methods and practices, the Integrated Learning model uses non-art methods and thinking within the context of art practice, emphasizing art practice and art-based perspectives. This is because the arts can engage disciplinary practices in playful unconventional ways and they often see disciplinary knowledge and ideas through a critical, iconoclastic lens.

Understanding the critical and creative functions of art-centred enquiry and art’s kinship with enquiry practices in the academic disciplines can prompt students and leaders alike to see the arts from a systemic perspective, where art is viewed as a key component of the knowledge system. As a vital part of the system, art is not a marginal enterprise with the primary purpose of making beautiful or expressive products, but is a serious intellectual enterprise. It is a means of knitting discrete discipline-based knowledge together (integrating) and it is also a way to disrupt conventional ways of thinking – to question established knowledge and norms.

It should also be noted that all of the Integrated Learning Habits pertain to effective leadership. Indeed, they echo the primary qualities Fullan (2001, 2011) argues as essential to ‘change leaders’ (2011).

## IMPLEMENTING INTEGRATED LEARNING

How do we make Integrated Learning work? Where do we begin? First, we work with teachers and teaching artists to develop curricular models that put the core ideas into action. Then we use these concrete examples to help spread the word. We create models by working with teachers and administrators to build on their strengths and needs, and what they already do. We help them to see that the art-centred integrated learning approach is not just another educational initiative added to their workload, but an effective way to reach their goals.

This aligns with Fullan’s (2001) and Wheatley’s (2006) premise that effective change occurs when leaders understand the nature of change – that change is incremental, complex and non-linear. Furthermore, catalysing change requires starting where you are, taking workers (or students) through meaningful experiences that build enthusiasm and clarity of purpose, and helping them to see that the change they are undertaking promotes their goals.

We need visionary leadership that makes all participants – students, teachers and administrators – into creative leaders who lead through complex,

flexible, integrated networks. To build these leaders and networks, we work with teachers who are open to the approach and align with them to transform the culture of their classrooms. This means helping teachers re-envision their role in the classroom, their relationships with students, the curriculum they develop and teach, and the teaching strategies they use. We help teachers evolve from authorities who transmit knowledge to students into knowledgeable co-learners who guide, think and learn with them. We also give teachers the tools to develop their own innovative and meaningful art-centred curriculum based on the Integrated Learning approach. Above all, we work with teachers to develop a community of learning and enquiry – one that encourages creativity and innovation in teaching and supports teachers in their work – where teachers become co-leaders with students and their administrators.

With the above as the overarching goals, the Alameda County Department of Integrated Learning offers a certification programme, the Integrated Learning Specialist Program (ILSP), for teachers and teaching artists that provides professional development courses in integrated, culturally responsive teaching and learning, curriculum design, and assessment. In the ILSP, a team of mentor artist-educators introduces ILSP participants to tools such as Harvard's Teaching for Understanding Framework (TfU) (Blythe 1998; Wiske 1998), Making Learning Visible (MLV) (Richhart et al. 2003) and the Studio Habits of Mind (ShoM) (Hetland et al. 2007). These frameworks supply a common vocabulary and the structures that frame and guide our practice. They also provide a context in which we nest the specific goals and tenets of the Integrated Learning approach and its framework.

The ILSP is not just a set of professional development courses, but also the epicentre of a network of practitioners/leaders. Former and present participants in the ILSP programme are individual teaching artists, teachers and teams of teachers from various schools around the Bay Area, many of whom are developing models built on Integrated Learning ideas and frameworks in their elementary, middle or high school courses. We find that when these teachers demonstrate how art-centred integrated learning works in their schools, their peers and administrators take notice, and often schools adopt these practices. This is occurring in schools and districts, and among teachers across the Bay Area and beyond.

We find that the strategies and processes we engage in our work tie in with Fullan's (2011) principles of effective leadership for change: learning through practice, being clear and resolute in purpose, building relationships among stakeholders, fostering collaboration, and maintaining a growth mindset. This mindset is the disposition towards continuously learning and adapting in order to take advantage of the 'adjacent possible' (Johnson 2010), which is a combination of the wisdom within the organization and the insights the organization gleans from others outside. Underlying all of this is the central premise that social organizations are interconnected living systems that learn as they adapt and regenerate (Wheatley 2006).

## **CONCLUDING REMARKS: SYSTEMS AND SYSTEMIC CHANGE**

Transforming education requires a clear vision grounded in effective ideas and practices, and a comprehensive grasp of all the parts of that vision and how they fit together (Fullan 2001, 2011; Wheatley 2006). For the Integrated Learning Program in Alameda County, the Integrated Learning Framework, supported by the Harvard Frameworks (TfU, MLV and ShoM), provides the



vision, clarity and cohesion we need. That is, it affords us what Fullan (2011) quoting Kruger (2008) calls 'Simplexity': a clear, concrete and easy to understand vision that frames and drives complex practices.

In working on multiple levels, the Integrated Learning approach aligns with a systemic view of education. The systems metaphor comes from Systems Theory (Bertalanffy 1968; Laszlo 1996), which describes living systems as complex organized wholes that are governed and structured by processes within them. Systems theory stresses the way parts of systems are interdependent and integrated. The systems metaphor works well as a lens on both social institutions and knowledge structures.

In regard to knowledge structures, understanding knowledge as a living system allows us to see how all the parts of knowledge and learning fit together as an integrated whole. It also explains how knowledge adapts in response to outside influences and also changes through the dynamics within disciplines. Art-centred integrated learning is part of the knowledge system within the education system; it is a kind of learning, a stimulus for learning and a catalyst for changing knowledge systems. Indeed, an art perspective can transform the way knowledge is understood. From a systems perspective, this reframing of knowledge is an alteration of its system; it can affect the thinking and methods that produced it. Changing perspective on knowledge can, therefore, have a transformative effect on the social institutions, the disciplines and the education system that generate, support and disseminate knowledge. We see here how an intellectual system affects a social structure, in particular how an integrated approach to knowledge can have a domino effect on teachers, students and policy-makers.

Through a systems lens, institutions such as schools, districts and communities are cast as social systems; they are integrated interdependent living systems that work through social networks. Schooling, therefore, is an organic, dynamic system of knowledge and learning in which all parts coexist, interact and work together. Seeing education in this way shapes our approach to educational change; we want the Integrated Learning approach to change the system systemically, and we network to build strong networks to make that happen.

Systems theory highlights change in living systems. Systems must change to thrive; they must regenerate and evolve. This calls for creativity. It entails altering or scrapping old ways of thinking and outdated processes that do not function well, and replacing them with new, wiser and more effective ones. It also entails rethinking system structures and the roles and relationships of players within the system. Because it presents alternative ways of thinking and doing, and reframes our understandings of stakeholders, we believe art-centred integrated learning is the instrument of change our schools need to evolve and flourish. Indeed, art-centred integrated learning is working in Northern California. It is permeating and invigorating our system, our networks of teachers, teaching artists, administrators, parents and students. It is bringing us together as collaborators and agents of change, as 'change leaders' (Fullan 2011). And it is going 'viral'. In a nutshell, we believe this is a promising model for transforming education on all levels – from pre-kindergarten to professional development of leaders.

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