Arts-Informed Learning Methods in Non-Arts Classrooms: 
Creating Multiple Ways of Knowing and Increasing Creative Thinking in Graduate Education

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Abstract: This chapter outlines the use of various arts-informed teaching methods for use in a non-arts graduate classroom in order to promote transformational learning, cognitive development, and creative capacity. In addition to a description of various instructional strategies, a pilot project examining the impact on student thinking will be discussed.

Keywords: Arts-Informed Learning Methods, Higher Education, Creative Thinking, Transformative Learning

Recent trends in organizational research have seen an influx of arts-informed methods (AIM) for data collection and analysis (Barry and Hansen 2008; Broussine 2008; Cunliffe 2002; Darmer 2006; Grisoni and Kirk 2006; Taylor and Hansen 2005). The same has been true for formulating organizational and team interventions (Brearley and Darso 2008; Stein 2003; VanGundy and Naiman 2005). In order to prepare students to be receptive to these approaches once they are in the workplace, exposure and experience with them is crucial. As well, there has been a general call for alternate instructional strategies (Nissley 2002) that better capture the texture and complexity of lived experiences in organizations and communities.

This chapter discusses several methods used to cultivate and document learning and alternative ways of knowing in a graduate MA program in Human Systems Intervention. It will demonstrate the use of several arts-informed instructional strategies that promote transformational learning (Dirkx 2006; Mezirow 2000), at both an individual and collective level. Used over several years for a course entitled Individual Learning and Change, with various cohorts, the impact of both textual (metaphors, poetry, and creative nonfiction), visual (cartoons, collage, and mural painting), and performative (clowning and mask making) instructional techniques are elaborated. A chronological progression of the arts-informed assignments and their impact will be described. In addition, the results of a three-year scholarship of teaching and learning (SoTL) (Healey 2000) inquiry will be elaborated, outlining the impact on individual learning, expert and creative thinking patterns.

Rationale For Using Arts-Informed Methods

An arts-informed (Knowles and Cole 2008) instructional methodology is an approach to instruction that is grounded in the arts in several ways: teachers and students are inspired by art forms, artists, bodies of work or artistic processes to create and capture innovative learning processes; these learning processes draw from artistic processes characteristic of how artists work; and representations of learning that rely heavily on art forms. Proponents of AIM claim that they are effective for:

- Promoting a sense of systemic aesthetics (Strati 2000), accentuating the art dimension of certain processes (Mintzberg 2004);
- Capturing a fuller texture and deeper complexity of the lived experiences of learning and life (Broussine 2008);
- Providing a valuable adjunct to the dominant logico-rational paradigm in today’s classrooms, creating multiple ways of knowing (Nissley 2002);
- Creating an effective way of accessing the emotions, desires, and passions of people, cutting through superficiality (Grisoni 2008); and
- Encouraging the following learning skills: observing and recording; organizing ideas; express feelings; working with purpose; maintaining focus; solving unstructured problems; respecting self and achievements (self-efficacy); communicating feelings/ideas to others; discovering one's own point of view while...

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appreciating other's point of view; and making aesthetic discoveries and rendering evaluative judgments (Isenberg and Jalongo 2001).

Short-term benefits of AIM of instruction include:

- Revealing dimensions of learning and aspects of the Self and representing to the world what cannot be experienced or communicated directly thereby creating trust and close learning relationships;
- Creating the context for “triple-loop learning”;2 (Raelin 2012), cognitive-emotional change (Brearley and Darse 2008), or transformational learning both at an individual and systemic level (Reilly 2010);
- Crafting coherent meaning out of an intense experience, in that aesthetic order “make[s] that world hang together, to fit, to feel right, to put things in balance, to create harmony” (Eisner 1985, 38); and
- Promoting the aesthetic growth and development of individuals and systems in order to unleash creativity.

These elements, in particular, prompted me to include AIM in my graduate teaching. To survive and thrive in today's world, individuals and human systems must develop the capacity for creativity as the preferred response to the demands for improvement and solving problems. Individual and group creativity have been cited as core competencies for contemporary life due to the complex demands of globalization, turbulent environments, and rapid social and technological changes (Shalley, Zhou and Oldham 2004). Creativity is seen as an ability that can be developed and improved through adequate experience and training (Scott, Leritz and Mumford 2004), as well as by constructing contexts that support its flourishing (Hunter, Bedell and Mumford 2007).

Examples Of Arts-Informed Methods Integrated In A Year-Long Course

The following is a description of the various AIM of instruction that I have used over the past ten years.

Program Context

The graduate program in Human Systems Intervention (HSI) is designed to provide expertise for work as organizational or community leaders and consultants facilitating change processes within human systems. It emphasizes the development of process-oriented observation and intervention expertise, and relies on an empowerment model of consultation; in this way, organizations and communities can develop these capabilities internally. Its instructional approach embodies a socio-ecological perspective, and a distinctive feature of this graduate program is the use of the cohort model whose aim is to create a thought collective3 (John-Steiner 2000). Cohorts consist of approximately 20 members, who are given the opportunity to shape a learning community designed to maximize the benefits of experiential enquiry. The program is generally completed within 2.5 years, with a high graduation rate within that timeframe.

Course Context

All of the activities described in this chapter comprised a dimension of the curriculum for the course Individual Learning and Change, a foundational course of the MA and a gateway into the program. Within this course, learning is conceived as a process that occurs over time in the context of changing social relationships and environments. Intervention in social systems implies the need for a practical understanding of learning and change. Goals of the course include:

- Developing the ability to optimally manage one's own learning processes as an intervener when being consistently confronted by high intensity challenges;
- Fostering the ability to effectively model these processes for others;
- Acquiring the ability to facilitate learning and change for others within systems; and
- Cultivating the ability to construct and shape social relationships, contexts, and systems to support these processes.

This course allows for the integration of theory, values, and skills in practical application. Knowledge extends to understanding and intervening effectively in social processes, the capacity to shape an environment, and the impact of transformative processes on environments and self. AIM allowed me to create a deeper reflective space for this learning to unfold, both at an individual level and a cohort level.

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2 When students engage in triple-loop learning, their premises, points of view about themselves and the world, and / or entire frames of reference are brought into question (Raelin, 2012).

3 A "thought collective" is a loosely structured collection of individuals with common concerns who, during focused collaboration, engage in the co-construction of knowledge as interdependent intellectual and emotional processes.
Entry: Vision Creation

Before students enter into the program, they are each asked to create their own 5-year personal and professional vision (Senge et al. 1994). A vision is a snapshot of what an individual wants his or her life to look like at a specific point in time. It is descriptive and detailed, reflective of a one’s deepest desires. A vision includes all aspects of life: career and work; family, friends, and community; health and fitness; personal capacities and appearance; housing and material belongings; leisure and volunteer activities; and income and finances.

There are two main reasons why students are asked to engage in this process. The first is that a vision helps students to make this MA program optimally meaningful, since vision is an essential element in living a creative and satisfying life (Senge 1990). The second reason is that this vision allows others in the cohort and faculty to know each student’s unique aspirations. This is crucial since everyone is engaged in forming a successful learning community. Knowing what each student wants most is a vital aspect of mutual understanding; articulating a vision enables everyone to plan in the present more effectively, so that they can be helpful fellow travelers.

Students present their visions during the very first weekend of the program. An artful rendering of their vision is required, since a visual component can be more evocative than words, and this sets the norm for creative activity as part of the curriculum. This vision is an ungraded assignment, and the artful rendering forms the basis of their presentation. Students are encouraged to use whatever medium they feel most comfortable using to depict the essential elements of their visions. Generally, students have opted for the medium of collage, since it seems to be the most accessible and non-threatening form. Gathering, selecting, analyzing, synthesizing, and presenting- activities that are essential to collage (Vaughan 2004)- also mirror what students are often trying to communicate.

![My Vision (Chantal)](image)

**Figure 1: My Vision (Chantal)**

**Benefits of Creating a Visual Representation for Learning**

Creation of an artful rendering functions as a method of *reflective* reproduction. This process allows students to draw out tacit, nonverbal insight into a conversational space with the Self where is can be worked on metaphorically, textually, and linguistically. The rendering communicates meaning through image, manifesting one’s inner life to be viewed by other members of the cohort and faculty, examining these aspirations in a dialogic
space. Transformation of the content of an individual's imagination into some public, stable form, allows it to be shared with others (Eisner 1985). Perhaps most importantly is the fact that this artful rendering can serve as an external reminder. Papers are put away in drawers or buried in files on a computer. But the visual representation has very often been used as a touchstone for the next 2 years. Students post their renderings in a prominent work/study area, and reflect on it often during year 1 of the program. One student noted, “Standing back from my ‘collage’ poster, I began to see patterns. I was able to evaluate what was important to me and what was missing.”

**As The Year Progresses…**

Creative activities are incorporated into the experiential classroom at practically every point, both as in-class activities and as an added arts-informed dimension to their assignments that focus on learning strengths and challenges, the outcome of a self-designed learning project, and the trajectory of a self-managed knowledge management team. These arts-informed activities are never graded but become an intrinsically motivating activity.

**Visual Images**

Since images play a powerful role in our society, and make us pay attention to things in new ways (Weber, 2008), they can be quite effective in the higher education classroom. For example, each cohort also creates a shared vision that represents the aspirations of the system using an appreciative exercise. Shared visions have a unifying property, become a coordinating force that helps the members of the cohort become focused on what is important, and support collaboration and create a culture of shared ownership. A shared vision also helps to build a narrative to the MA experience. These aspirations are recorded as drawings that embody and evoke emotional and visceral hopes and aims. As the cohort engages in this activity, the drawing becomes the site for challenging, dislodging, negotiating and transforming outdated beliefs and assumptions. When completed, these drawings, then, are able to occupy an elevated place in memory (Leavy 2009), guiding the trajectory of the cohort. The following image is part of the drawing of one cohort’s “fruit tree,” i.e. the gifts they wanted to give themselves by the end of the program. They were able to use this as compass to measure their progress.

![Figure 2: Our Tree of Life (HSI 2006)](image)

**Poetry**

Poetry can access deeper insights into the emotional texture of social interactions. It can be a tool for reflection that has an *individual* dimension to the writer alone and a *collective* dimension, since once shared it can resonate and belong to everyone (Grisoni 2008). Poetry’s strength is that it does not flatten out the domains under investigation, or "translate them into rationality" (109), but uses them to understand reality, both subjective and subversive. Poems use language to open up spaces of possibility for constructing understanding between the participant and the reader-
audience. These textual spaces of possibility not only invite knowing, but also create spaces of becoming and connection (Leggo 2008). “Poems, surrounded by space and weighted by silence, break through the noise to present an essence” (Leavy 2009, 63). Students were encouraged to include poems as a way to communicate the truth of their raw experience as lived from the inside, especially for assignments that focused on struggles or on synthesizing their learning, and to distill these into essential knowledge.

**Leaving Jouvence by Stephen**

I sit with the day
that becomes the night
on soft streaks of orange as the stars take flight.
The glow of a fire
breathes warmth in your touch
and the unspoken words
that say so much.

A small glass of wine
a thought
a prayer
you are my comfort
you give me care.

So I sit with this moment
this brief state of grace
sharing your laughter
and the peace on your face.

I turn to the east
to await my rebirth
my heart in the heavens
my feet on the earth

And
at last must arise
with an ancient sigh
for only in my dreams
do I say
goodbye.

Generally, students reported having a very positive experience creating poems. In fact, one participant, an internal consultant and project manager for a high profile multi-national corporation told me that she was so enthusiastic about writing poetry that she took an extra long lunch break so that she could immerse herself in the task. This method of identifying and communicating learning may be a more proactive, engaging, and affirming experience than essay writing.

**Creative Nonfiction**

Creative nonfiction is a genre of writing that uses literary styles and techniques to create factually accurate narratives. It allows readers to vicariously participate in the world of the learner, but in a dramatic, interesting, and evocative way (Caulley 2008). Creative nonfiction utilizes literary techniques such as scene, dialogue, hyperbole, and description, allowing a personal point of view and voice to emerge (Gutkind 2001). This technique goes beyond the mere reporting of facts; it delivers them in ways that move readers toward a deeper understanding, allowing them to discover underlying meaning (Cheney 2001). Creative nonfiction was a more nonthreatening and familiar form for those students who were intimidated by crafting poetry. Using this technique, students were able to vividly recount experiences that provoked and precipitated transformational learning moments, richly and memorably before they deconstructed these moments using the various theories explored in the course. Like poems, these slices
of creative nonfiction opened up spaces of possibility for constructing understanding between the student and the Self, and the student and the reader-audience, creating spaces of connection.

I have my books, my wallet, my passport, my medication, some money, an old hand-written letter from my mother, my sun glasses, my heavy laptop with two and a half hours of battery. I am at ten thousand feet of altitude (or fifteen, or five, who really cares?). There are many people around me. This woman besides me is silent, like me, or talking to herself, like me—because I am talking to myself in a long quasi-private conversation. I am travelling. Travelling from one place to another. I barely remember how long I have been traveling. Is this place the same as it was when I was here last time? Is this piece of sky the same piece of blue sky that saw me crying last time?

We tried, though. Somehow six people and I established a group for talking. We said we were going to talk each week, on the Wednesday evenings from eight to nine; we were going to talk about ourselves, throwing out everything that happened to us—everything or nothing. And we said we were going to learn from that talking. Very few times we created a whirlpool of words and silences, though we had a lot of bubbles and some blurbs.

Still I am travelling; this is my endeavour. Today I am travelling at home, in my basement: I am going from the unknown to the unknown, knowing so little about the path, having fragments of people and faces and voices with me, handcrafting few words to stay and many others to go, suffering and somehow enjoying the suffering. (The Traveller by Sergio)

Vignettes created using creative nonfiction formed a context for students to practice the skill of braiding received knowing (theories, concepts and positions as elaborated by experts) with subjective knowing (knowing that emerges from personal experience) into a lush tapestry of constructed knowledge (Belenky et al. 1986).

Metaphor

Metaphors are a way to understand new concepts by comparing them to familiar concepts, and, for most people, are devices of the poetic and rhetorical imagination. However, Lakoff and Johnson (2003) contend that metaphor is pervasive in everyday life, not just in language, but also in thought and action. Conceptual systems, in terms of how we both think and act, are fundamentally metaphorical in nature. Therefore, asking students to fashion metaphors concerning their learning experiences or their team’s progression gave them the opportunity to communicate complex, multi-layered cultural assumptions, values and beliefs in a coherent way. Mining the metaphor (digging deeper or extending it) surfaced unspoken or unknown insights.

The example given below used The Canterbury Tales as a metaphor for the development of a knowledge management team. Chaucer paints an ironic and critical portrait of English society at the time, particularly the Church. The students in this team used the same structure as the Tales to build a frame narrative around which each student’s distinctive story was connected, mirroring Chaucer’s idea that the structure will depend on the characters rather than a general theme. Each student wrote his or her tale is a unique voice, presenting a private perspective, highlighting the social and personal nature of group experience and knowledge construction.
ARTS-INFORMED LEARNING IN NON-ARTS CLASSROOMS

Figure 3: On The Road To Canterbury: The Learners’ Tale

Cartoons

It would be naïve and disingenuous to act as if cohort learning is not without its pitfalls. Though the emotional ties characteristic of cohort learning have been linked to positive student outcomes (Maher 2005), researchers have noted that students frequently report negativity between students or between students and faculty (Barnett et al. 2000); that they or classmates were excluded, “boxed into” predictive and restrictive roles or trapped in unpleasant relationships (Teitel 1997); or that students experienced intense discomfort and irreconcilable conflict early in the life of the cohort (Maher 2005). Several AIM instructional techniques were used to uncover and face serious difficulties in a nonthreatening and supportive way.

One of these techniques involved the use of cartoons. Cartooning is a genre with a long history, whose origins have been traced to pre-linguistic cave-drawing, the first evidence of symbolic representations of human experience (Hogben 1949). Ranging from political protest to persuasive propaganda to depictions of everyday life, cartoons draw upon parody and irony to make a point about the human condition. And it is in using the devices of parody and irony that conflict, stereotyping, exclusion, and distorted mental models can be surfaced, deconstructed, explored, and transformed in a safe environment. Cartooning was suggested as a way to encapsulate these limiters to learning through leveling (reducing the issue and the perceptual field to 2-dimensions), sharpening (dropping needless details and highlighting the important ones), and assimilation (using exaggeration and interpolation) (Bathurst, Sayers and Monin 2008). Depending upon the evolution of the emotional life of the cohort, this AIM was introduced when tension was high between cohort members. Each student project team was tasked to produce a collective cartoon that illustrated to their peers some of their challenges in working together or rough spots they had encountered. Cartoons were then presented to the rest of the cohort and discussed. By openly addressing these issues, feelings of alienation and shame were reduced.

4 This image is originally from a manuscript of the poetry of John Lydgate, who wrote The Siege of Thebes as a continuation of Chaucer’s Canterbury Tales. This image guided the collective assignment for Andrew, Rhonda, Jade, Terry, Judith, Sergio, and Sharon.
Clowning

Clowning performed a similar role as cartooning, in allowing students to explore and express the difficult side of learning in community and maladaptive systemic patterns that stunted their development and growth. Since mediaeval times the jester or clown has been a privileged individual able to comment upon social structure, rules, and authority while remaining immune from repercussions (Plester and Orams 2008). Clowning reframes- turns inside-out and upside-down- perceptions while holding up a mirror to society, using humor as a tension-releaser. It expresses alternative possibilities and questions the status quo without overtly subverting it. This playful and performative educational activity is linked to improvisation, innovation, and experimentation (Conquergood, 1989)- hallmarks of creativity.

In order to maximize the impact of this AIM, clowning was used at the midpoint of the school year, so that the material that emerged could be deconstructed and transformed. A group of students were asked to identify some of the undiscussables operating in the cohort or to pinpoint issues that needed to be surfaced so that the cohort could grow. Working with an experienced external clowning consultant, and provided with the characteristic red nose, students constructed a pantomime that was performed in front of the cohort. Lots of laughter preceded a serious discussion of the issues presented in the farce.
Masks

A mask is a common word used to describe the façade that an individual often adopts in social situations. As an AIM, mask making can fashion a context for members of the cohort to identify and explore its own façade, i.e. its outward appearance and way of conducting interpersonal relationships that conceal a less pleasant reality, and can draw attention to hidden or covert dynamics. Covert, less conscious processes in a system are a potential source of instability. Therefore, it is important to find creative ways to make these more visible and available to influence.

This instructional method was also used at the midpoint of the school year, providing the cohort another opportunity to engage in dialogue and tackle areas in need of change in their own functioning. The big kissy lips depicted below represented the false sociability and affability the cohort enacted in to avoid addressing interpersonal conflict.

Arts-informed Intervention: Mural Creation of Year 1

At the end of year 1, each cohort fabricates a mural representing its learning journey. This AIM activity becomes a reflective exercise that explicitly: creates a dialogic space for reflection, recall, and negotiation of a co-constructed meaning of the students’ experience; cultivates the integration of conceptual and socio-emotional learning; allows the cohort to talk about those leftover undiscussables and represent them in multiple ways; acts as a point of intervention into the cohort’s functioning; and creates a context to mindfully design their learning experiences for year 2. It becomes a time for them to fine tune their relationships, reorient to their shared vision, bask in their accomplishments and growth, and/or resolve any unsettled or outstanding matters.

Generally, the process is the same every year. A large paper is taped to the wall of the classroom, and a variety of materials (paints, brushes, colored markers, crayons, glitter, etc.) are provided. A timeline is drawn on the paper, demarking each month when the cohort was in residence. A section at the end is labeled Moving forward to give space to what areas and skills members of the cohort would like to nourish and develop. Students begin to draw spontaneously. However, the drawing is less important than the conversations that happen as the mural emerges. This becomes an opportunity for students to again to engage in collaborative meaning making. Each cohort’s
process is unique. Some cohorts present the end of their voyage. Other cohorts present details of the twists and turns, the downs and the ups of their path. But all murals represent a crystallization of the impact of learning on a system’s ability to grow and develop. The mural is then presented to faculty and guests at the end of their reflective retrospective weekend. It is also used as a tool for the cohort to introduce itself to the new incoming cohort.

Figure 6: Mural-Making (HSI 2012)

Qualitative Inquiry Examining the Impact of AIM of Instruction

In order to examine the impact of these AIM on student learning in a more systematic way I carried out an inquiry using SoTL principles.

Research Questions

The following questions guided this inquiry process:

- How do AIM of instruction shape student thinking and conceptual acquisition?
- What impact do AIM have on student creative capacity?

Methodology

I used a qualitative methodology, since this approach is conducive to understanding meaning attributed by participants to certain events, how context influences actions, and the process by which events and actions take place. It also facilitates the identification of unanticipated phenomena, and can be used to generate preliminary theoretical propositions (Maxwell 2013).

Methods

This project employed a multiple-case study design (Stake 2005). Sources of data included a pre- and post-AIM activity group interview, participant observation, and the AIM creative products. One concept was targeted using AIM, i.e. the ability to understand and engage in systems thinking, a threshold concept (Meyer and Land 2005) and

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5 Threshold concepts are concepts with the following properties: they are transformative (occasioning a shift in perception and practice), integrative (surfacing patterns and connections), irreversible (unlikely to be forgotten or unlearned), potentially troublesome (counter-intuitive and unsettling) and bounded within a specific disciplinary context. Systems thinking is a way of thinking about, describing, and understanding the forces and interrelationships that shape the behavior of systems. This capacity helps individuals to see how to change systems more effectively, and to act more in tune with their natural processes (Senge 1990).
skill in the field of Human Systems Intervention. Initial group interviews illuminated the initial knowledge of the concept, and the capacity to engage in systems thinking. The AIM group facilitators carried out participant observations in order to capture any relevant data regarding group interaction during the AIM activity.

Participants

Forty-nine MA student participants (comprising three cohorts from three different years) participated in various AIM activities that created a reflective and representational space to consider their cohort’s learning and possible interventions in order to increase learning effectiveness. The focus was on developing the ability to see the cohort as a system, and to identify patterns.

Procedures

Once all ethics procedures were fulfilled, participants were randomly assigned to a group that was involved in:

1. a group interview concerning some aspect of their cohort’s functioning which assessed the ability to engage in systems thinking;
2. collectively or individually creating an arts-informed representation of this dimension and the group discussion; and
3. a group discussion to illuminate insights, changes in perception and understanding, and participants’ view of the learning system (i.e. any changes in the ability to engage in systems thinking).

The activities included creating a collage, composing poetry, mask making, and performative clowning. Photographs were taken during the art-making activity.

Analysis

Group interviews were transcribed and analyzed. The category string method of coding was used (Dey 1999) in order to retain a holistic sensibility to the analysis. Each string [a primary representation] contained particular points along a strand, which were later plaited into the thread [subcategories linked to major categories linked to primary representations], still connected through meaning. These strings reflected an underlying cognitive model about the patterns of systems thinking and insight processes. Coding was done at the level of units of meaning and a codebook was created. Group interviews were also coded as to content commonalities using inductively derived thematic concerns (Ely et al. 1997). A thematic concern captured something salient about the data with regards to the research objective, and represents some level of meaning within the data set at a semantic level (Braun and Clarke 2006). Participant observations and analysis of the photographs (Pink 2007) were used to triangulate the data.

Findings

Cognitive Shifts

Generally, statements made by participants shifted from an individual focus (“He is like that.”) to a more systemic focus (“We seem to repeat that pattern over and over.”). As well, engaging in AIM created spaces of multisubjectivity (shifting from “This is what happened” to a sense of multiple truths) and multivocality (conversation patterns shifted from I/me/my to I/you and me/your). Participants reported actually seeing the cohort as a system. There was an increase in the number of diagnostic statements using a group development theory. Analysis of the actual thinking skills showed the use of problem representation thinking skills, i.e. comments that communicated how an individual identified, understood, constructed, or interpreted a problem, a type of thinking characteristic of experts (Reilly 2008). There was a marked increase in the use of problem finding (the intellectual vision and insight into what is missing), flexibility (seeing a situation from different points of view or classifying an event into different categories) and fluency (expanding on an existing suggestion or adding additional information), characteristics of creative thinking (Reilly 2008).

Emotional Shifts

The emotional shifts were as important as the cognitive shifts, and were key to the transformational learning process. Analysis of the post-AIM activity conversations demonstrated less dependence on faculty authority for influencing the cohort, and a willingness to be more self-directed in shaping their own cohort dynamics. AIM facilitators noted a
release of tension and an increase in the positive energy of the group after the creative activity. There was a more positive, generative approach to subsequent classroom activities. Students visibly demonstrated an increased enthusiasm for the course content and learning processes.

![Figure 6: Brearley and Darsø’s model of cognitive-emotional change (2008)](image)

**Long-Term Impact of AIM**

This particular class session, conducted in February, reverberated for the rest of the school term, which ended in May. It created multiple opportunities for intentional tinkering (Fenwick 2004) into structural and relational configurations. Students built on the insights and shared information that emerged from the AIM to mindfully intervene to promote healthy functioning within its own system. This intentional tinkering to promote growth and development is characteristic of a complex adaptive system (Reilly and Mcbrearty 2010).

I also conducted a focus group of graduates who had participated in these AIM 18 months later. They remembered how transformative these methods were, and had been using AIM in their professional work.

**Discussion**

Traditional methods of higher education assessment do not generally create dialogical spaces for students to engage in collective reflection and intentional intervention. AIM, on the other hand, did exactly this. They allowed the cohort to discuss issues and represent them in multiple ways. Frequently these were systemic dynamics (a dimension subject to change) that were generally attributed to personality (an aspect of self that is relatively fixed). This suggests that AIM did create the context for triple-loop and transformational learning both at an individual and systemic level. Traditional methods of assessment also do not adequately surface dimensions of learning and aspects of Self since they cannot be experienced or communicated directly. AIM allowed students to reveal to others their internal world as they engaged in a process of making coherent an intense experience.

**Implications**

Arts-informed methods allow instructors to adopt a multi-lensed teaching approach with one lens being creative activity, that can communicate the texture and complexity of learning that can be so intense and multi-layered, traditional forms of capturing it cannot do it justice.
References


