# LEARNING AND KNOWING FROM THE ARTS: AN INTERDISCIPLINARY MODEL OF AESTHETIC KNOWING

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## Abstract

In this article the author analyzes the types of knowledge and learning involved when educationalists study works of art to further their professional development. A theoretical background of experiential learning is presented. An Interdisciplinary Model of Aesthetic Knowing (IMAK) is developed and presented, utilizing the Model of Aesthetic Understanding as Informed Experience of Richard Lachapelle, Deborah Murray and Sandy Neim. Additional kinds of knowledge and learning processes included in the IMAK are discussed. Attending a concert in South Africa by Neil Diamond, the popular singer/songwriter stimulated the author to reflect upon his own metacognitive thinking and learning, both during and after the concert, and on the application of what he learned to the IMAK and in his lecturing room.

**Keywords:** Neil Diamond, popular music, aesthetic experience, Interdisciplinary Model of Aesthetic Knowing, lifelong learning.

## 1.    INTRODUCTION

Jessica Davis describes aesthetic education as "[t]he education of perception, specifically artistic vision that can be applied to every experiential situation" (Davis, 2011:13). This implies that people can be educated to perceive and appreciate works of art, but also that they can be educated to apply what they have learned from works of art in their everyday lives. It seems reasonable, for example, to argue that we can learn from a film like Alice in Wonderland how to believe in ourselves and how to realize our full potential in our careers and personal lives. In this regard Parsons (2002:31) distinguishes between knowing-about-art (that Johnny Depp played the part of Mad Hatter) and knowing-in-art (that we do not need to live an unfulfilled life, for example).

In this article I do not want to contemplate learning about the arts only. I should like to believe that teachers, for example, can also learn from the arts so as to come to a better understanding of education or what might be termed knowing-in-art-about-education. I thus wish to explore and explain learning from the arts or from an aesthetic experience about education, an experience also applicable to other professions.

To illustrate the processes and kinds of knowledge that might be involved during such an experience I shall utilize a seemingly unusual platform: a live performance of the popular music artist Neil Diamond in South Africa.

In 2011 this experienced, highly successful singer and songwriter performed in the World Cup 2010 Soccer Stadiums in Soweto (see Figure 1), Cape Town, Durban and Port Elizabeth.



**Figure 1: Neil Diamond performing in Soweto.**

I attended his Soweto performance in April 2011 with the purpose of investigating my own ability to learn from the arts about my educational practices.

## 2.     WHY NEIL DIAMOND?

Diamond is one of the five most successful solo artists in the world (Jackson, 2004:2). In the twelve months after the release of Solitary Man in 1966, four of his five new songs became Top 20 hits in America (Jackson, 2004:44). As early as July 1967, in a poll among disc jockeys conducted by the American magazine Cash Box, Diamond was rated one of the most promising male singers. At the end of that year he and Frank Sinatra were identified as America's number-one singers by the same magazine (Jackson, 2004:44).

He had, metaphorically speaking, burst onto the American hit parade like a bomb and has, in the nearly five decades since, released forty-eight albums (Fingeret and McDonald, 2011) with varying success. As recently as 2008, his album *Home Before Dark* sold 146 000 copies in its first week and gained top position on the American Billboard charts (Bream, 2009:18). He has sold in excess of 130 million albums (Fingeret and McDonald, 2011).

From this it seems evident that Diamond has captured the attention of successive generations. Educationalists, on the other hand, seem to struggle to accomplish this: it is not uncommon to hear (ageing?) teachers complain about the inability or even refusal of learners to pay attention to what they are saying or doing in their classrooms.

As a teacher and lecturer I frequently had this problem, which led me to study Diamond's artistic strategies and attributes: if I study his performance and apply what I find in my classroom, I might be able to get and keep the sustained attention of my students. If I succeed, other educationalists might also be motivated to explore all kinds of music, artists and art forms as venues for professional development.

## 3. APPRECIATIVE METHODOLOGY

I used the 5D-framework of Appreciative Inquiry (Cooperrider, Whitney & Stavros, 2008:73; Whitney & Trosten-Bloom, 2010:6; and Watkins, Mohr & Kelly, 2011:86) as a methodological framework for my endeavour (see Figure 2). Whitney and Trosten-Bloom (2010:1) argue that Appreciative Inquiry is the study of what gives life to humans or human systems when they function at their best. According to them, this approach to personal change is based on the assumption that questions and dialogue about strengths, successes, values, hopes and dreams are themselves transformational.

According to Kelm (2005:1), this appreciative process enables us to journey into the conscious and unconscious domains of our minds as we explore how we think and what we say. She also argues that the appreciation of others helps us create our personal identity and reality with them. For the purpose of this research I have appreciated a live performance by Neil Diamond to create an improved reality in my lecturing room.
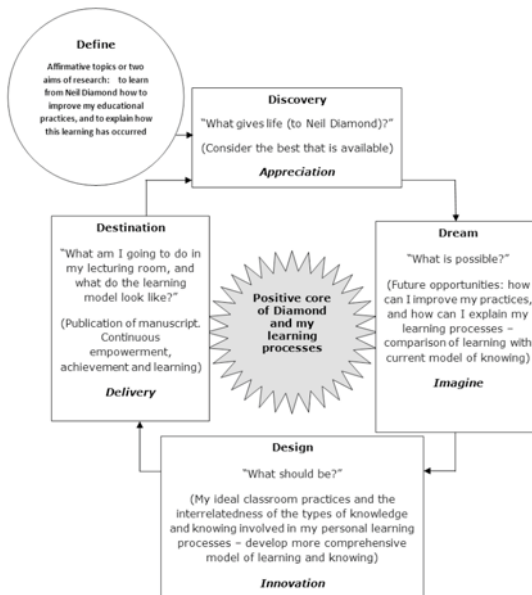


**Figure 2: The Appreciative Inquiry 5D-cycle (Adapted from Cooperrider, Whitney & Stavros, 2008:5; Whitney & Trosten-Bloom, 2010:6; and Watkins, Mohr & Kelly, 2011:86).**

In the first phase – the Define phase (see Figure 2) – the two aims or positive topics for this study were articulated: to learn from Neil Diamond how to improve my educational practice; and to explain how this learning occurred.

With the first aim in mind, I started the second or Discovery phase of AI: "The core task of the Discovery phase […] is to appreciate the best of 'what is' […]" (Watkins, Mohr & Kelly, 2011:87 - see Figure 2.) I prepared for the concert by reading biographies of Diamond (Harvey & Harvey, 1996; Jackson, 2004; and Bream, 2009). I listened to his music and studied recordings of two of his live performances - in 1972 (Matarazzo, 1972) and in 2008 (Stewart, 2008). I also kept a personal journal for reflective purposes before, during and after the Soweto performance. These reflections and my experiences while attending the concert led me into the second aim or affirmative topic of my study: to consider and explain my personal learning processes.

The metacognitive reflections about my personal learning experience and processes were performed during the third or Dream phase of the 5D-cycle (see Figure 2). According to Whitney and Trosten-Bloom (2010:8), Dream is an energizing exploration of "what might be." For them, it is a time to envision possibilities that are big, bold and beyond past boundaries. During this phase I explored my own learning processes before, during and after the concert. I compared my learning processes to an existing model of aesthetic understanding – see section 5: A Model for Learning and Knowing About the Arts - that provides an explanatory framework for the kinds of learning and knowing that are possible when people engage with works of art in art galleries.

But I did not just learn about the art and artistry of Neil Diamond: I also learned much about my personal learning processes and my professional career. I therefore went beyond mere comparison and the boundaries of the existing model of knowing and learning: during the fourth or Design phase of the 5D-cycle (see Figure 2) I extended the abovementioned model of aesthetic understanding to include the kinds of professional and personal knowing and learning that I recognized during the process.

My endeavour came to a conclusion when, in line with the 5D-cycle of AI, the manuscript reached its Destiny when it was accepted for publication. This phase also involved continuous empowerment, achievement and learning (see Figure 2).

In the discussions above I have referred to Diamond's performance as an experience from which I have learned. Because my learning experience was an experiential one it is now necessary to engage with the theory of experiential learning.

# 4.  EXPERIENTIAL LEARNING AND KNOWLEDGE: A THEORETICAL BACKGROUND

Bartlett, Adams & Maness (2011:175) consider experiential learning to be any learning process in which experience (especially as distinguished from didactic transmission of information) plays a key role. They describe it as a cyclical model of learning, in which learners reflect on experiences to gain new knowledge and insight. Gained knowledge and insights are then tested, modified and applied to different situations.

Our understanding of experiential education and learning has been influenced by a number of people (O'Bannon & McFadden, 2008:23 and Merriam & Bierema, 2014:104). I shall utilize the overview of the contributions of a few relevant prominent theorists by Merriam and Bierema (2014) to provide a theoretical background for the experiential learning model that I wish to present.

Although philosophers at least as far back as Aristotle have considered the role of experience in learning, the philosopher and educator John Dewey, in his book Experience and Education, first published in 1938, has had the most influence on our understanding of this role (Merriam & Bierema, 2014:104-5).

Dewey (1938; 1966:25) established an "… organic connection between education and personal experience…." This implies that learning through our experiences is a natural process – but he also warned that not all experiences are genuinely or equally educative. Some experiences are mis-educative; they have the effect of arresting or distorting the growth for further experience (Dewey, 1938, 1966:25).

He therefore emphasized the importance of the quality of experience, which has two aspects: an immediate aspect of agreeableness or disagreeableness; and its influence upon later experiences (Dewey, 1938; 1966:27). He described what he called the "experiential continuum" (Dewey, 1938; 1966:28,33): "Wholly independent of desire or intent, every experience lives on in further experiences. Hence the central problem of an education based upon experience is to select the kind of present experiences that live fruitfully and creatively in subsequent experiences."

Dewey's arguments are primarily based upon the situation at primary and secondary school level. The role of experience in learning is also central to our understandings of adult learning (Merriam & Bierema, 2014:105). Lindeman, an early adult educator and a contemporary of Dewey, famously wrote that "the whole of life is learning" and "the resource of highest value in adult education is the learner's experience" (Lindeman, 1961:6, according to Merriam & Bierema, 2014:105-6). He also wrote that "experience is the adult learner's textbook."

For Merriam and Bierema (2014:106) it seem clear that, as we age, we have a variety of life experiences which can be drawn upon in a learning situation, but which also stimulate the need for learning.

Merriam and Bierema (2014:104) also argue that our lives play out in a cyclical pattern, where learning often leads to new experiences, and life experiences are themselves sources of learning. For them, this relationship between experience and learning is particularly prominent in adulthood when we are engaged in a continual flow of activities in the private, public and professional spheres of our daily life. They hold that engaging in, reflecting upon and making meaning of our experiences are at the heart of adult learning – whether these experiences are primarily physical, emotional, cognitive, social or spiritual.

David Kolb, using the models of learning developed by Dewey, Lewin and Piaget (Kolb, 1984:20), describes experiential learning as the process whereby knowledge is created through the transformation of experience (Kolb, 1984:38). He points out that his definition emphasizes a number of critical aspects of the learning process as viewed from the experiential perspective (Kolb, 1984:26-38). I shall refer to three aspects relevant to my study.

He firstly argues that the emphasis in experiential learning is on the process of adaptation and learning as opposed to content and outcomes: "The emphasis on the process of learning as opposed to the behavioural outcomes distinguishes experiential learning from the idealist approaches of traditional education and from the behavioural theories of learning created by Watson, Hull, Skinner and others. […] Ideas are not fixed and immutable elements of thought but are formed and re-formed through experience. […] [L]earning is described as a process whereby concepts are derived from and continuously modified by experience" (Kolb, 1984:26).

Kolb (1984:27) further points out that knowledge is a transformational process, being continuously created and recreated, not an independent entity to be acquired or transmitted. He refers to Dewey (1938:35) who argued that "… the principle of continuity of experience means that every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after …" (Kolb, 1984:27).

He emphasizes, however, that although we are aware of the sense of continuity in consciousness and experience, and take comfort from the predictability and security it provides, there is on occasion in the penumbra of that awareness an element of doubt and uncertainty (Kolb, 1984:27). Unforeseen circumstances, miscommunications and dreadful miscalculations might upend us – but "… [I]t is in this interplay between expectation and experience that learning occurs" (Kolb, 1984:28).

Lastly, Kolb (1984:36) holds that, to understand learning, we must understand the nature and forms of human knowledge and the processes whereby this knowledge is created. He then emphasizes that "… this process of creation occurs at all levels of sophistication, from the most advanced forms of scientific research to the child's discovery that a rubber ball bounces" (Kolb, 1984:36). He defines knowledge as the result of the transaction between social knowledge and personal knowledge, the former being the civilized objective accumulation of previous human cultural experience and the latter being the accumulation of the individual person's subjective life experiences: "Knowledge results from the transaction between these objective and subjective experiences in a process called learning" (Kolb, 1984:36-7).

According to Lachapelle, Murray & Neim (2003:83), Alexander, Schallert and Hare (1991:317) put forward a definition of the kind of knowledge constructed during the aesthetic experience. Knowledge is defined as an individual's personal stock of information, skills, experiences, beliefs and memories. According to them this knowledge is always idiosyncratic, reflecting the vagaries of a person's history. They maintain that this use of the term knowledge contrasts with the use of the term in the field of epistemology, where knowledge often refers to justified, true beliefs and is reserved for universal, absolute, truths. Rather, in the [psychologically oriented] literature, knowledge encompasses all that a person knows or believes to be true, whether or not it is verified objectively or externally (Lachapelle, Murray & Neim, 2003:83).

Within the context of this article, I prefer to refer to the eventual form of knowledge – as constructed during and after the learning process – as what Donald Schön describes as "knowledge-in-action" or even as "knowing-in-action"(Schön, 1987:25). I then also use the term within the context of his definition. He uses knowing-in-action to refer to the sorts of know-how revealed in intelligent actions – publicly observable, physical performances like riding a bicycle [or presenting a lecture to students in my case] and private operations like instant analysis of a balance sheet. In both cases, the knowing is in the action. Schön (1987:25) further contends that we reveal it by our spontaneous, skilful execution of the performance; and we are characteristically unable to make it verbally explicit.

Returning to Kolb's philosophy, the experiential learning model is presented in Figure 3 below. For comparative purposes, and because Jarvis (2006: 8-11; 21; 106; 138-9; 154; 188) criticizes Kolb's model, it is important that I refer to the main dimensions and components of the process presented in the diagram.

Kolb (1984:40-1) describes the process of experiential education as a now-famous four-stage cycle involving four adaptive learning modes: concrete experience, reflective observation, abstract conceptualization and active experimentation.

"In this model, concrete experience/abstract conceptualization and active experimentation/reflective observation are two distinct dimensions, each representing two dialectically opposed adaptive orientations. The structural bases of the learning process lie in the transactions among these four adaptive modes and the way in which the adaptive dialectics get resolved. To begin with, notice that the abstract/concrete dialectic is one of prehension, representing two different and opposed processes of grasping or taking hold of experience in the world – either through reliance on conceptual interpretation and symbolic representation, a process I will call comprehension, or reliance on the tangible, felt qualities of immediate experience, that I will call apprehension" (see Figure 3).
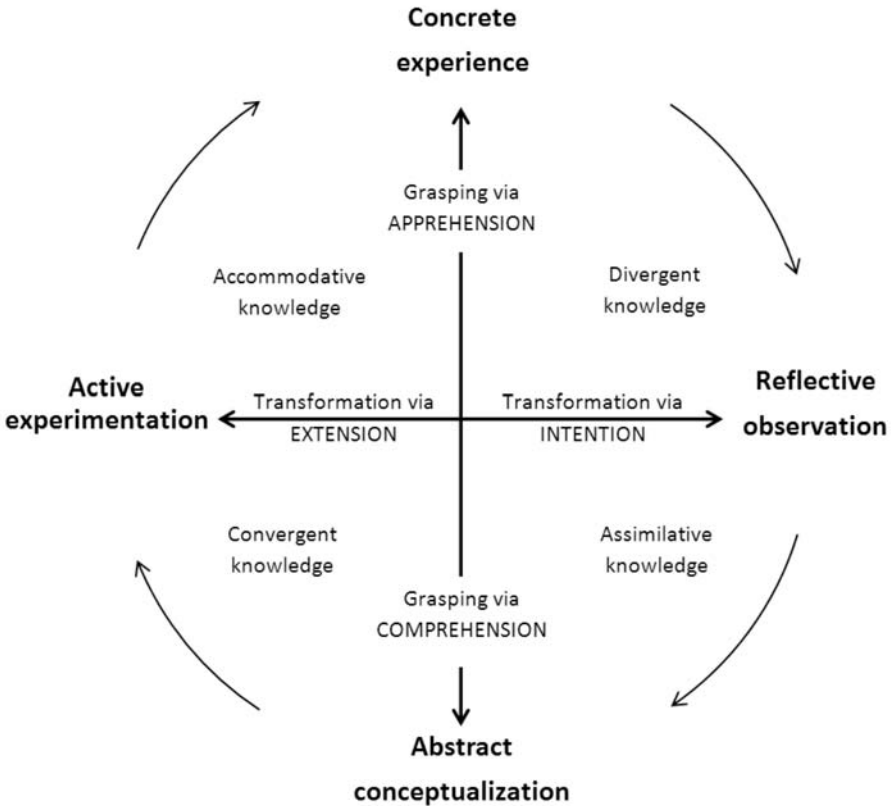


**Figure 3. Kolb's "[s]tructural dimensions underlying the process of experiential learning and the resulting basic knowledge forms" (Kolb, 1984:42).**

I have to interrupt the argumentation here to illuminate Kolb's explanation with an example. Let us imagine that we are attending a simulated class presented by a female student teacher with the purpose of providing her with critical and/or positive feedback.

This will be an example of a concrete learning experience – both for us and for her. She is standing behind a podium, using different types of teaching media to support her presentation. There are chairs, a blackboard and maybe pictures on the walls. A number of her peers listen attentively, all dressed differently. We are experiencing an imagined, but typical reality. Kolb (1984:43) describes this kind of situation – and knowing about it - as follows: "… all these things and many others you know instantaneously without need for rational inquiry or analytical confirmation. They are simply there, grasped through a mode of knowing here called apprehension."

But to describe a situation like this, Kolb further argues, is somewhat difficult (Kolb, 1984:43): "It is almost as though the words are vessels dipped in the sea of sensations we experience as reality, vessels that hold and give form to those sensations contained, while sensations left behind fade from awareness. […] In this sense, concepts and the associated mode of knowing called comprehension seem secondary and somewhat arbitrary ways of knowing. Through comprehension we introduce order into what would otherwise be a seamless, unpredictable flow of apprehended sensations, but at the price of shaping (distorting) and forever changing that flow."

Our descriptions of reality will always be attenuated versions of it, but Kolb (1984:43) holds that comprehensions of reality can be communicated and therefore transcend time and space – and to the extent that the comprehensions are accurately constructed from our apprehensions, they allow us to predict and recreate those apprehensions. The educational advantages of this seem evident: we can utilize them to teach, to reflect upon and to learn from.

For Kolb (1984:41), the " … active/reflective dialectic, on the other hand, is one of transformation, representing two opposite ways of transforming that grasp or 'figurative representation' of experience – either through internal reflection, a process I will call intention, or active external manipulation of the external world, here called extension." Kolb (1984:52) indicates that "… the conception that extension and intention are the basic transformation processes in learning is largely consistent with Piaget's emphasis on the operative aspects of thought, which he divides into behavioural actions (extension) that transform objects or states, and intellectual operations (intention) that are internalized actions or systems for transformation (Piaget, 1971, p. 67)".

Let us return briefly to the previous example of the student teacher's imaginary simulation class that we attended to illustrate the transformation dialectic: after the completion of the class we reflect upon her strategies and the media she used and provide her with suggestions towards improvement (transformation via intention), which she might utilize to enhance her presentation (transformation via extension). This will then lead to active experimentation, the fourth stage in the cycle (see Figure 3).

The basic knowledge forms included in Kolb's cycle (see Figure 3) are relevant within the context of this article. Divergent knowledge is presented in the quadrant between concrete experience and reflective observation. This form of knowledge can be described as fluid, flexible, elaborate and original (Molfese, 2011a:146) – to be created after the concrete experience by reflecting upon it.

Assimilative knowledge is situated in the sector between reflective observation and abstract conceptualization. Piaget's "Theory of Cognitive Development" describes the process of encoding new information into cognitive structures as assimilation (Ferguson, 2011:36): "A child's reference to an unfamiliar animal as 'dog' is an instance of incorporating something new into an existing theory. In this instance, the child has generalized in terms of his or her existing schemes." It follows that assimilative knowledge is now part of the child's schemes.

Convergent knowledge is situated in the sector between abstract conceptualization and active experimentation (see Figure 3). Guilford characterized thinking that is rigid, stereotyped and conventional as "convergent thinking" (Molfese, 2011b:102): "It was used to describe routine thinking and is contrasted with divergent thinking." The knowledge that is the result of such a thinking process would display similar characteristics.

Accommodative knowledge is presented in the quadrant between active experimentation and concrete experience (see Figure 3). According to Ferguson and Ripley (2011:5) "Jean Piaget's 'Theory of Cognitive Development' describes the alteration of established schemes in order to incorporate new information as accommodation. Accommodation may involve the changing of existing cognitions to gain an understanding of a new concept." It follows that accommodative knowledge is knowledge that is the result of changes, additions or other alterations to existing (convergent) knowledge.

I mentioned earlier that Jarvis (2006) criticizes Kolb's model. During the mid-1980's he became "… profoundly dissatisfied with the many different approaches to learning …" (Jarvis, 2006:8). He then embarked on research during which he asked adults participating in adult education workshops " … to write down a learning incident from their own lives, then to compare and contrast their learning incidents with another participant in the workshop, and then the pairs were combined into larger groups of four to discuss their findings about their own learning" (Jarvis, 2006:8). He then handed out copies of Kolb's learning cycle similar to the one depicted in Figure 4, telling them that they did not necessarily have to accept the model but that they should reconstruct it to fit their four learning stories (Jarvis, 2006:8-9).
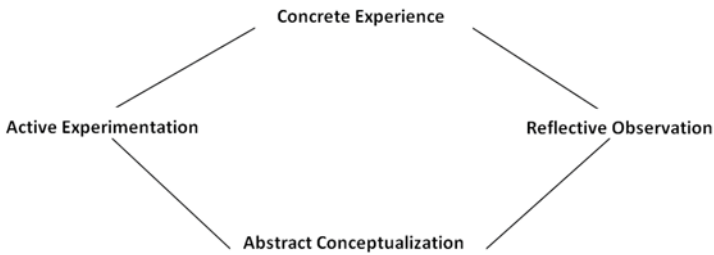
**Figure 4. Kolb's learning cycle as presented by Jarvis (2006:8) to participants in his adult education workshops.**

Based on the feedback of about two hundred participants he eventually constructed a model that "… is considerably more complex than Kolb's and consists of nine routes, or types of learning" (Merriam & Bierema, 2014:111). I shall not present a detailed description of his model but rather rely on the summary of Merriam and Bierema (2014:111-2) to reflect its core components:

> *Three routes he labelled 'nonlearning' in which the individual either presumes to already know (presumption), decides not to consider the opportunity to learn (nonconsideration), or outright rejects the opportunity to learn from the situation (rejection).*

> *The second three positions in his model constitute learning but non-reflective learning such as what goes on at a preconscious level, involves basic skills through practice, or involves memorization. The final three routes he termed 'reflective learning.' Here an individual can contemplate an experience and 'either accept or change it' (contemplation), or 'think about the situation and then act upon it, either confirming or innovating upon it' (reflective practice), or 'think about the situation and agree or disagree with what they have experienced' (experimental learning)(Jarvis, 2006, p. 10)*

Jarvis (2006:10-11) then argues that "… Kolb omits, among other things,

- the person, so that he fails to note the way the person is changed;
- the bodily sensation of experience;
- the influence of the social situation and, therefore, the social construction of experience;
- the process of reason and, therefore, of planning;
- the possibility that we may not always universalize our experiences;
- emotional and practical learning."

Jarvis (2006:11) considers these weaknesses to be a fundamental flaw in Kolb's model of learning.

He readily admits, though, that presenting Kolb's model to the "subjects" (Jarvis, 2006:9) might have predisposed them to use his four elements.

I wish to point to another fatal flaw in his methodology.

I have specifically presented the main dimensions and components of Kolb's model in previous paragraphs in order to illustrate the elegant complexity of it. It seems fair to argue that Jarvis, in "giving" (Jarvis, 2006:8) the specific oversimplified version of Kolb's model to participants (see Figure 4), effectively prevented them from analysing it in depth. His instructions also seemed to be leading the participants in a subtle direction, namely that of rejecting Kolb's model. It seems as if his personal dissatisfaction contaminated his methodology to the extent that one can largely reject his criticism of Kolb's model.

Yeganeh & Kolb (2009) and Kolb & Yeganeh (2012) also do not seem to consider Jarvis's critique of Kolb's original model seriously: Kolb's experiential learning cycle is still presented in its original form.

In addition, Jarvis's model was socially constructed by people in pairs and in groups of four. As such, it is undeniably a valuable contribution to the process and theory of experiential learning. The model I wish to present in this article, though, is primarily an attempt to explain my individual learning processes and, although some implications for social learning processes might appear during the discussions, I do not wish to address these social processes. I can therefore now apply the theoretical developments above to the specific model for learning and knowing about the arts that was developed by Lachapelle, Murray and Neim (2003) and to the extended model I wish to present.

## 5.    A MODEL FOR LEARNING AND KNOWING ABOUT THE ARTS

Richard Lachapelle, Deborah Murray and Sandy Neim (hereafter referred to as LMN) propose an adequate model (their Model of Aesthetic Understanding as Informed Experience) for the learning process possible when an adult encounters an artwork in the form of a painting in an art gallery (Lachapelle, Murray & Neim, 2003).

They concur that Kolb's model of experiential learning describes experiential learning in dynamic terms (Lachapelle, Murray & Neim, 2003:82). They also reason that Kolb's conception of the process of experiential learning can be superimposed onto the process of aesthetic experience, and as such can provide insight into the mechanisms that might underlie aesthetic understanding.

Their model aims to explain the art-viewing experiences of individuals in art museums; they feel that Kolb is proposing an approach to experiential learning that is more appropriate for a classroom setting " … because learning using this approach requires a cooperative, group effort" Lachapelle, Murray and Neim (2003:83). From my previous remark about social learning processes, it will be clear that I am in agreement with them. In stating this they effectively contradict Jarvis's argument that Kolb omits the social situation.

They also contend that Kolb's model does not account for the role that theoretical bodies of knowledge play in the process of aesthetic learning: "As we will soon see, a model of aesthetic knowing – if it is to provide a prescriptive means by which to teach about the appreciation of all kinds of art […] – must take heed of the need to accommodate theoretical knowledge at some point in the learning cycle" (Lachapelle, Murray & Neim, 2003:83). In this I am only partly in agreement with them, since one should point out – as was done earlier - that Kolb included previous cultural experience in his definition of knowledge. Previous cultural experience, I believe, can be regarded as a form of theoretical knowledge, though not in a categorical sense.

At the outset LMN say that the four core dimensions of human experience – the affective, the perceptual, the communicative and the cognitive – are brought into play when we study works of art (Lachapelle, Murray & Neim, 2003:78). Their model – like Kolb's - considers the cognitive dimension of human experience.

In their model (Lachapelle, Murray & Neim, 2003:79), the process of viewing and understanding a work of art is visualized as a two-phased informed experience (see Figure 5).
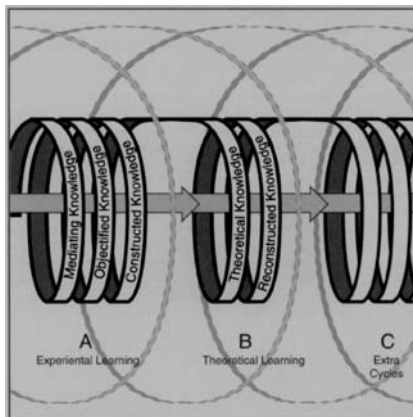


**Figure 5. LMN's Model of Aesthetic Understanding as Informed Experience (Lachapalle, Murray & Neim, 2003:85).**

They describe it as a process of experiential learning during which the viewer first encounters the work of art and formulates an initial interpretation. Then, through a process involving theoretical learning, the viewer compares this first interpretation with a related body of external, scientific information.
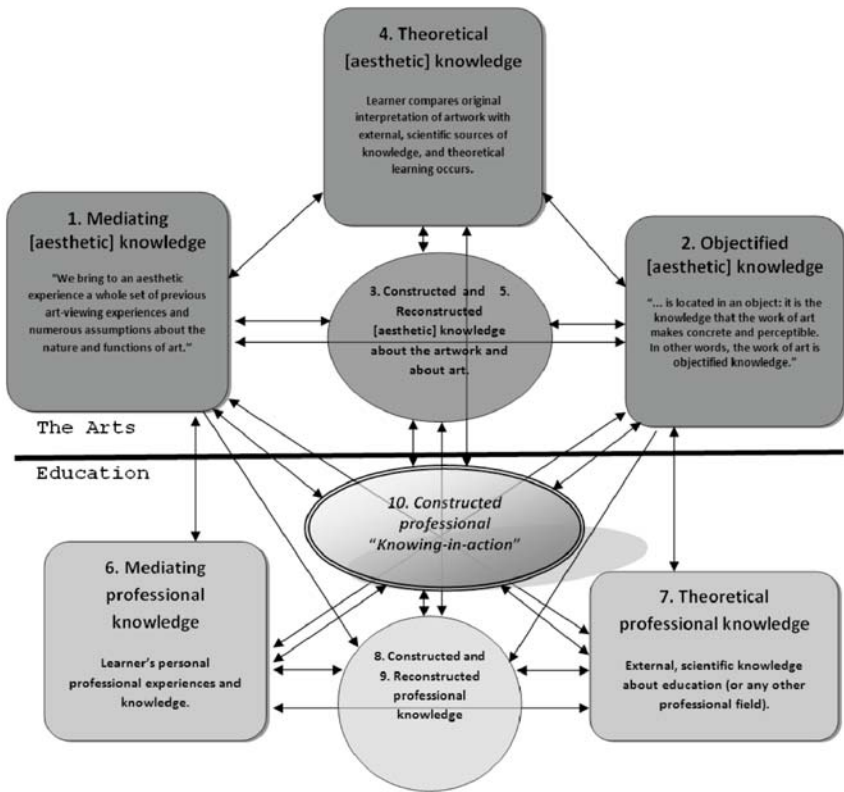
According to Lachapelle, Murray and Neim (2003:79) this second step in the learning process leads to a reconstruction of knowledge about the work of art. Tandem use of the two processes assists the viewer in furthering understanding of the art object; it also promotes growth in art-viewing skills. In the course of each new encounter with an aesthetic object, the interplay of experiential and theoretical learning leads to additional development of the viewer's background knowledge in art, resulting in better preparedness to successfully engage with the next work of art (Lachapelle, Murray & Neim, 2003:79).

Aesthetic experiences of this kind and the learning that results from them obviously encompass active discovery of works of art and eventually lead to interpretations of works of art (Lachapelle, Murray & Neim, 2003:81). This process – studying, interpreting and assessing works of art – is moreover dynamic and constructive: "It is a self-guided, active learning experience in which the learner constructs new knowledge based on an encounter with an art object and other related sources of information. It is a form of experiential learning in the truest sense" (Lachapelle, Murray & Neim, 2003:81).

To enable a learner to learn in this way, some form of aesthetic experience appears to be necessary. I consider LMN's definition of an aesthetic experience to be functional within the context of this article. Aesthetic experience is defined by Lachapelle, Murray and Neim (2003:83) as "… an individual response to a work of art without undue regard for the quality of that response". They argue that the responses of novice and expert viewers alike are considered to be essentially aesthetic in nature if they pertain to works of art. Aesthetic experience is further defined by Lachapelle, Murray and Neim (2003:83) as "… a learning process by which the viewer, in encountering an art object, constructs new knowledge about the art object in question and, in occasional, ideal situations, about the nature of art itself". An aesthetic experience leads to an aesthetic understanding of the work of art that the viewer can share with others (Lachapelle, Murray & Neim, 2003:83).

According to LMN, such new comprehension initially occurs during the first phase of the learning process, and results from the interaction between different bodies of knowledge (Lachapelle, Murray & Neim, 2003:84). Because I believe that my personal learning processes are not cyclical or in phases but rather erratic, I prefer to present it as a network of reflective thinking and learning (see Figure 5).

LMN's model is represented in the top, darker grey parts (numbers 1 to 5) of Figure 5. I shall firstly investigate their description of these kinds of knowledge.

**Figure 5: An Interdisciplinary Model of Aesthetic Knowing based on the work of Lachapelle, Murray and Neim (2003) for the dynamic, interactive learning process that results when educationalists or other professionals learn about and from the arts – both at the professional and the personal level: "knowing-about-art" and "knowing-in-art". Arrows represent possible reflective processes during the course of which active learners look at the artwork and at related fields of knowledge, study and reflect upon them and then weave them together into personal and professional knowledge: "Knowing-in-action."**

Because the kinds of knowledge numbered 1-5 apply to knowledge about the arts, I have added the descriptive term "aesthetic" to them. This also enables me to distinguish them from the kinds of knowledge numbered 6 to 10 which will be presented later.

The first kind of knowledge discussed by Lachapelle, Murray and Neim (2003:86) is mediating knowledge (number 1 in Figure 5). They state that, when we encounter a work of art, we bring all our personal and professional pasts. Salient features of the work may awaken memories, and these will probably alter the experience.

In addition to our assumptions and past experiences, we also apply our skills in looking at and understanding works of art, and our knowledge about the history of art, aesthetics, art criticism and art production (Lachapelle, Murray & Neim, 2003:86).

Mediating knowledge, according to Lachapelle, Murray and Neim (2003:86), is the personalized body of knowledge that the viewer brings to the aesthetic encounter. They argue that it is comprised of the assumptions, the skills, the personal experiences and formal knowledge – all acquired prior to the experience immediately at hand – that relate directly or indirectly to our personal practice of aesthetic appreciation. As the name implies, mediating knowledge is an intermediary that "stands" between us and the art object (Lachapelle, Murray & Neim, 2003:86).

LMN also provide a description of the second kind of knowledge (Number 2 in Figure 5 – objectified knowledge) involved in an aesthetic experience. They argue that, contrary to the subject-centred nature of mediating knowledge, objectified knowledge is located in the object: it is the knowledge that the work of art makes concrete and perceptible.

In other words, the work of art is objectified knowledge. They explain that they have chosen this term to describe the art object, because it describes the manner by which the artwork stores and conveys knowledge.

They also put it more specifically by arguing that objectified knowledge consists of the ideas and feelings that are communicated by the artist through the process of creation and dissemination of his or her work of art. Each aspect of the work of art conveys meaning, and therefore each is a source of objectified knowledge (Lachapelle, Murray & Neim, 2003:86).

The interactive process between the mediating knowledge and the objectified knowledge, according to LMN, results in a third kind of knowledge, namely constructed knowledge (Number 3 in Figure 5). Lachapelle, Murray and Neim (2003:87) claim that, when a viewer encounters a work of art, an aesthetic experience begins to unfold in much the same manner as a dialogue between two individuals except that, in this case, the exchange occurs between the viewer and the aesthetic object.

They maintain that, through aesthetic dialogue, the interaction of mediating knowledge and objectified knowledge produces constructed knowledge. This new knowledge embodies the meaning that the viewer has constructed about the work of art and they therefore reason that it is a highly individualized form of knowledge. It consists of the personal meaning that the viewer has assigned to the work of art based only on his or her experiential encounter with it.

Constructed knowledge is a result of a creative process based on the imagination (Lachapelle, Murray & Neim, 2003:87), and it appears to be similar to Kolb's Assimilative Knowledge, which is constructed in the period between Reflective Observation and Abstract Conceptualization (see Figure 3).

LMN hold that the aesthetic experience often ends once the first phase has been completed – thus after constructed knowledge has been compiled (Lachapelle, Murray & Neim, 2003:88). They view this to be unfortunate because when the experiential learning that occurs during the first phase is combined with theoretical learning, the result is a powerful partnership that enhances not only aesthetic understanding but also aesthetic development.

The fourth kind of knowledge required for this to happen, i.e. theoretical, external knowledge (Number 4 in Figure 5) can inter alia be gained in the following ways: the artist's own, written version of the work in question; a subject-specialist's complex dissertation; or a critic's composed argument(Lachapelle, Murray & Neim, 2003:89).

By introducing mediating knowledge and theoretical knowledge into their model of knowing, LMN seem to address one of their concerns with the learning model of Kolb that was mentioned earlier – that Kolb's model does not account for the role that theoretical bodies of knowledge play in the process of aesthetic learning.

The integration and synthesis of constructed and theoretical knowledge occurs during the second phase of the learning process and results in a fifth kind of knowledge (Number 5 in Figure 5), namely reconstructed knowledge – the meaning that the learner ultimately constructs about the work of art (Lachapelle, Murray & Neim, 2003:90). The learning process now becomes cyclical and the two phases may occur repeatedly.

When one compares LMN's cycles with Kolb's model it is possible to find more similarities between them. LMN's process of the integration and synthesis of constructed and theoretical knowledge discussed in the previous paragraph is seemingly comparable with Kolb's phase of Active Experimentation (see Figure 3) and LMN's reconstructed knowledge might be comparable to Kolb's Accommodative Knowledge.

To connect and compare my learning processes during and after the performance of Diamond to the types of knowledge described by LMN, I shall now provide some illustrating examples.

1.      Mediating [aesthetic] knowledge: This is the knowledge about Diamond and his performances that I accumulated before the concert – including knowing that his song "Shilo" was written about his lonesome childhood, when he invented an imaginary friend (Jackson, 2004:47):

*Papa says he'd love to*
*be with you*
*If he had the time*
*So you turn to the only*
*friend you can find*
*There in your mind*
*Shilo, when I was young*
*I used to call your name*
*When no one else*
*Would come*
*Shilo, you always came*
*And we'd play*

2.      Objectified [aesthetic] knowledge: This is the knowledge located in the performance, the songs, the stage and the technical equipment like the sound system. One example: in the song "I am I said" Diamond sings about a time of intense personal struggle:

*"I am," I said*
*To no one there*
*And no one heard at all*
*Not even the chair*
*"I am," I cried*
*"I am," said I*
*And I am lost, and I can't*
*Even say why*
*Leavin' me lonely still*

3 and 5: Constructed and reconstructed [aesthetic] knowledge: This is a new kind of knowledge constructed through interaction between mediating knowledge and objectified knowledge. I have assigned personal meaning to Diamond's performances. On 21 March 2011 I wrote in my journal: "Each time I watch Neil's 2008-DVD [of a performance in New York] I am changed. How? I am more inspired, more completely human, more in contact with myself, my past, my future. I feel comforted: Neil is my defence against own dilapidation, despair, and life itself."

Constructed knowledge is indeed a result of a creative process based on the imagination. An example of this is the following: In the mid-1950's Diamond developed a love of fencing (Jackson, 2004:10).

He was very successful in the sport and it is my opinion that one can still recognize some of his fencing movements when he performs on stage – if one uses one's imagination. On 6 April 2011 I confirmed this interpretation in my journal: "His movements on stage are definitely based on his past as a fencer. I would say that this is a rather uncomfortable marriage between his music and the art of fencing." My interpretation of his movements might not be correct, but it is easy for me to imagine that it is.

4.      Theoretical [aesthetic] knowledge: This is the kind of knowledge about Diamond and his performances that is available in external, theoretical sources, like in his biographies or interviews.

At the beginning of his career, Diamond preferred to wear black clothes on stage [he also wore black clothes in 2011 - see Figure 1]. In 1976 he explained why he preferred that colour:

"When I first started to perform I wore pure black: black boots, black pants, black shirt, black guitar. In a sense it was a way of hiding behind that solid black front of mystery, you know" (Diamond, 1976).

Laura Jackson holds a somewhat different opinion of Diamond's early preference: "His ingrained reservations about performing live had not diminished. By now he had begun to play a regular gig at the Greenwich Village pub, The Bitter End. It was managed by Fred Weintraub, who had lately been enlisted as his manager; Weintraub's memories of these appearances reveal how incredibly nervous, even insecure, Diamond was. [...] Neil has owned up to this unease, admitting further that for gigs he would deliberately wear black so as to make himself, he thought, less conspicuous on stage" (Jackson, 2004:36-7).

Since I was able to connect and compare my own learning experience to the types of knowledge identified by LMN, it is my opinion that their model offers a satisfactory explanation of my aesthetic learning process – when and what I have learned about the arts. As was mentioned earlier, Parsons (2002:31) termed this knowing-about-art.

I would wish to call this their Intradisciplinary Model of Aesthetic Understanding as Informed Experience – understanding and learning within the arts discipline – to distinguish it from the extended model that I now wish to propose.

To analyse, describe and comprehend my own metacognitive processes more comprehensively I shall expand LMN's learning model so as to take into account the learning process occurring and types of learning that are involved when I or other people derive illuminating insights - and know better - about educational practice and strategies after engaging with the field of the arts.

Beardsley (1970:6) elegantly called the ability to learn from the arts about aspects of our daily lives field-to-field cognitive illuminations. Jessica Davis refers to philosopher Maxine Green who describes this as an "awakening of the spirit" – an ability to make sense of our experiences through the lenses of works of art and literature (Davis, 2011:13).

## 6. LEARNING AND KNOWING FROM THE ARTS: AN INTRODUCTION AND EXPLORATION OF AN INTERDISCIPLINARY MODEL OF AESTHETIC KNOWING

In this section I shall accommodate the personal field-to-field cognitive illuminations that I have experienced by adding five types of professional knowledge (the lighter grey sections – numbers 6 to 10 - of Figure 5) to the interactive processes within the existing model with a view to develop an Interdisciplinary Model of Aesthetic Knowing (IMAK), i.e. a model for learning and knowing between disciplines. All the current learning models deal with learning within a specific discipline. None of them address learning between disciplines. It is my contention that my model enables me to understand and explain how and what I have learned about education from Neil Diamond. This model comprises the following kinds of knowledge:

- Mediating professional knowledge (Number 6 in Figure 5) – that body of personal professional knowledge, experiences and skills that every educator has, and which is brought along to the contact session with the work of art.
- Theoretical professional knowledge (Number 7 in Figure 5) – that body of scientific knowledge contained in scholarly articles and other publications that are part of education as a discipline.
- Constructed (Number 8 in Figure 5) and reconstructed (Number 9 in Figure 5) professional knowledge – the knowledge that learners idiosyncratically compose during the aesthetic learning experience and the following interactive learning process.
- Constructed professional "knowing-in-action" (Number 10 in Figure 5).

## 7. A PERSONAL EXPLORATORY APPLICATION OF THE IMAK

It is now necessary to align parts of what I have learned from my engagement with Diamond and his performance with the proposed IMAK to explore the suitability of the Model to explain the kinds of learning and knowledge applicable to my specific aesthetic experience. I shall do this by illustrating the different kinds of knowledge presented in Figure 5 with examples.

6. Mediating professional knowledge: This is my personal professional experiences and knowledge as a teacher (from 1988 to 2006) and as a lecturer (2006-2014).

7. Theoretical professional knowledge: This body of knowledge is always available to me in academic journals and other professional publications. In fact, this very article is both based on such contributions – the work of LMN and others - and intended as an addition to this body of knowledge.

8 and 9: Constructed and reconstructed professional knowledge. These kinds of professional knowledge are constructed from the aesthetic encounter. In this sense, Beardsley's process of experiencing "field-to-field cognitive illuminations" is operational.

On 2 April 2011, in the train returning from Diamond's performance, I recorded such an observation: "The venue was terribly beautiful, and the grass was green. It was as if one was watching the DVD; he has a formidable ability to 'nail a performance down'. And he can only do it because he has a whole crowd of assistants available to set the whole thing up." This thought reported itself as an educational interpretation, a cognitive illumination: "Teachers simply cannot be doing it all on their own anymore; there must be a supporting team at each school to develop slideshows, to maintain computers and sound systems, that develop and sustain web pages and other educational technology."

10. Constructed professional "knowing-in-action": Based on the constructed knowledge above I decided to use much more technology in my lectures, and to make use of assistance in doing that: I consulted the specialists responsible for my university's Blackboard e-learning platform and I recorded all my lectures and uploaded these sound recordings onto the learning platform. I was surprised to discover that these recordings were hugely popular among the students: they were downloaded hundreds of times. In course review questionnaires after the course their contribution towards improved comprehension of the work was pointed out by many grateful students.

Neil Diamond has inspired me to improve my professional practice. I now know better what to do in educational action.

## 8. CONCLUDING REMARKS

The IMAK is based on an analysis of my personal learning processes and as such needs to be considered by a broader audience to establish its applicability in a more general sense. A few conclusions are nevertheless applicable when the proposed IMAK in Figure 5 and the arguments in the previous paragraphs are contemplated.

Dynamic, continuous interaction between the knowledge fields in question will firstly occur during optimal participation in the learning processes. The dynamic learning facilitated by interaction, synthesis, integration and application of the various kinds of knowledge involuntarily calls to mind a cognitive network. Although the processes may be cyclical or in phases, their actual functioning – in my mind, at least - is characterized by arbitrarily "jumping" from one field of knowledge to another so as to accomplish a rich learning experience. The examples of a data network or the quantum leaps of electrons between the orbitals of atoms present themselves as parallels to explain the nature of the dynamic reflective learning process between the fields. It is important to point out that little meaningful learning is possible without continuous reflection – in fact, the IMAK is embedded in what can be described as a sustaining "plasma" of reflection.

This rich learning process could, in motivated learners, also potentially result in self-knowledge, self-understanding and professional growth and skills. Should the individual learner so wish, this process could continue for extended periods of time. I know that, on a personal level, my engagement with Diamond will last a lifetime.

Given the integral presence and position of the personal insights and experiences of learners in the IMAK, the development and outcome of the learning process will always be idiosyncratic – each individual will compile a unique set of personal outcomes, as applicable within the unique realities of that particular person – which, if one considers the complex nature of the teaching situation within each classroom, would appear to represent a satisfactory situation.

The proportional extent or utilization of the individual knowledge fields could further be subject to much variation among individual learners. Learners could, for example, should they so wish, draw mainly on the field of their own experiences of the arts to expand the field/extent of the constructed professional ("knowing-in-action") knowledge. The precise nature of the source of the knowledge is not crucially important; what is very important is that such knowledge should improve an educator's ability to know better what to do from one moment to the next in a classroom with students or learners.
I would even allege that the construction of "knowing-in-action" is altogether possible without having to utilize any objectified aesthetic and/or professional knowledge. Educators are thus able to grow professionally with little exposure to objectified aesthetic or professional knowledge. Schön (1987:17) maintains that the latter would in some cases be preferable: "In the absence of talent, some coaches believe, there is little to be done, and if there is talent in abundance, it is best to keep out of the student's way." It is essential to state specifically that I do not wish to imply that subject knowledge about a specific field is not essential. The converse would rather apply.

In contrast to the "outer" nine knowledge fields, "knowing-in-action" (number 10 in Figure 5) is dynamic, like when we catch a ball: it "... is a continuous activity in which awareness, appreciation, and adjustment play their parts"(Schön, 1987:25). I could term this knowing-what-to-do-in-educational-practice-from-one-moment-to-the-next. The significance of this type of knowledge is reflected in the fact that Schön considers it to be the core of the artistry of professionals (Schön, 1987:13).

A useful metaphor for the tightly interwoven nature of the ten types of knowledge in the IMAK is that of piano keys. Knowledge Fields 1 to 9 would represent the keys at rest. The music that is potentially produced becomes Knowledge Field 10: it only becomes a reality when the music reaches one's ears – and it only lasts as long as the notes are audible. The educational "pianist" can decide from one moment to the next what notes to play to make beautiful music. I naturally do not wish to imply that sheet music is not required. Thorough planning is essential, but a personal interpretation is always possible and even desirable.

The proposed Interdisciplinary Model of Aesthetic Knowing describes the learning process that can potentially occur when educators, other professionals and in fact, all people, use artists, their performances and other artworks as platforms for professional or personal development. I wish to remark that theoretical knowledge about education is also not always readily available to educators-in-practice, so that the theoretical learning described in my model often does not materialize optimally. Yet, if presenters and institutions were to use the IMAK as a framework for planning professional developmental activities for educators, they should preferably ensure the ready availability of such information.

It is necessary to remark that the kind of learning described in the IMAK will not necessarily materialize optimally in all, if any, of those who, for example, participate in a staff workshop about the possible educational applications of Neil Diamond's artistry. Among the participants there will be, for example, staff members who have never heard of Neil Diamond, and some who might even find his performances boring.

The approach supported by the learning model is nevertheless an enjoyable alternative to the less exciting developmental opportunities often offered to educators. I wish to argue that the learning processes that are presumed at these more traditional work sessions also do not always materialize optimally. LMN's pronouncement also applies to the IMAK: "As a model of the ideal aesthetic experience, it explains how experiential learning can interact with theoretical learning in such a way as to lead to real gains in terms of the learner's aesthetic understanding and aesthetic development" (Lachapelle, Murray & Neim, 2003:96).

It would appear that LMN's arguments about their model of knowing (Lachapelle, Murray & Neim, 2003:97) could easily be applied to the interdisciplinary approach and to the IMAK. They contend that their model emphasizes an active approach to aesthetic learning that meets the needs of adult learners. They hold that, rather than becoming the passive recipients of interminable art history lectures, adults can learn the skills required for viewing and researching works of art in ways that maximize their own understanding and enjoyment. Furthermore, they reason that their model acknowledges, through its emphasis on mediating knowledge during the first phase of the learning process, the considerable body of knowledge that adults bring with them to their aesthetic encounters. This acknowledgement empowers the adult learner by placing him or her in the position of a knower. Thus, it encourages the learner to build on what he or she already knows (Lachapelle, Murray & Neim, 2003:97).

I should finally like to believe that educationalists, but also other professionals, once they are aware of the arts as a potential platform for professional development, would be empowered to be successful in their pursuit of this kind of development. Every film, piece of music, painting, sculpture and play to which educators are exposed can afterwards – at the conscious and cognitive level – serve as a potential platform for reflection and professional development. That, I believe, might be lifelong learning in the truest sense of the word.

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