

State University of New York College at Buffalo - Buffalo State University

## Digital Commons at Buffalo State

---

Creativity and Change Leadership Graduate  
Student Master's Projects

Center for Applied Imagination

---

8-2002

### The Art Gallery Excursion as a Bridge to Idea Generation and a Heightened Aesthetic Experience

Anthony G. Billoni  
*Buffalo State College*

To learn more about the International Center for Studies in Creativity and its educational programs, research, and resources, go to <http://creativity.buffalostate.edu/>.

---

#### Recommended Citation

Billoni, Anthony G., "The Art Gallery Excursion as a Bridge to Idea Generation and a Heightened Aesthetic Experience" (2002). *Creativity and Change Leadership Graduate Student Master's Projects*. 16.  
<https://digitalcommons.buffalostate.edu/creativeprojects/16>

Follow this and additional works at: <https://digitalcommons.buffalostate.edu/creativeprojects>



Part of the [Social and Behavioral Sciences Commons](#)

The Art Gallery Excursion as a Bridge to Idea Generation  
and a Heightened Aesthetic Experience

by

Anthony G. Billoni

An Abstract of a Thesis  
In  
Creative Studies

Submitted in Partial Fulfillment  
of the Requirements  
for the Degree of  
Master of Science

August 2002

Buffalo State College  
State University of New York  
Department of Creative Studies

## ABSTRACT OF THESIS

### The Art Gallery Excursion as a Bridge to Idea Generation and a Heightened Aesthetic Experience

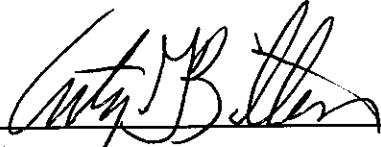
The purpose of this research was twofold: (1) to demonstrate that a person can generate useful ideas to a problem or challenge by looking at a number of art pieces in a gallery setting and (2) to examine whether or not the act of producing useful ideas through a gallery excursion acts as a bridge to a heightened aesthetic experience. Questions that guided this study were:

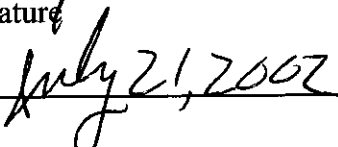
- Will a creativity excursion in an art gallery yield useful ideas?
- Can novel and useful ideas generated by looking at art help develop a heightened art experience?

The Art Gallery Excursion was an adaptation of a divergent idea generating tool known as Visual Synectics. In the Art Gallery Excursion participants were asked to identify a problem or challenge of personal importance and then tour a collection of art objects in a gallery setting. They were asked to record all the thoughts and ideas that occurred during their time with the art. Upon completing the tour they were asked to review their writings and make any connections back to their problem or challenge.

Two groups of adults (N=12, N=18) with high and low levels of training in deliberate idea production participated in separate Art Gallery Excursions. Findings showed that the Art Gallery Excursion was an easy to understand experience. All who participated were able to generate their own challenge. Nearly all who participated generated useful ideas to their challenge. The data from this study also showed that most participants had a positive change in their orientation to art.

The information in this study can be used in furthering the generational development of the current excursion tools and has the potential to strengthen the relationship between creativity and the field of art gallery-based education.

  
\_\_\_\_\_  
Signature

  
\_\_\_\_\_  
Date

Buffalo State College  
State University of New York  
Department of Creative Studies

The Art Gallery Excursion as a Bridge to Idea Generation  
and a Heightened Aesthetic Experience

A Thesis in  
Creative Studies

By

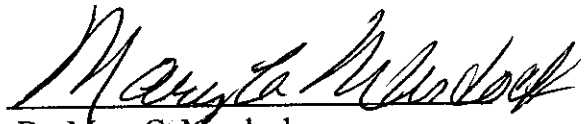
Anthony G. Billoni

Submitted in Partial Fulfillment  
Of the Requirements  
For the Degree of

Master of Science  
August 2002

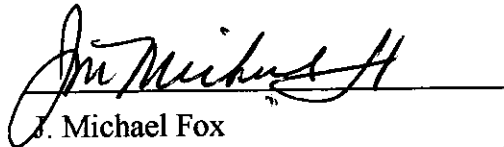
Dates of Approval:

July 21, 2002



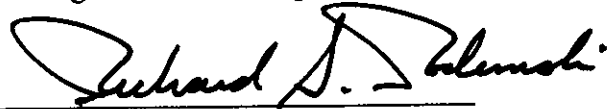
Dr. Mary C. Murdock  
Associate Professor of Creative Studies  
Thesis Advisor

July 29, 2002



J. Michael Fox  
Associate Professor of Creative Studies  
Acting Chair of the Dept. of Creative Studies

July 31, 2002



Richard S. Podemski  
Dean of Graduate Studies and Research

## Table of Contents

Acknowledgements .....	iv
1. Statement of the Problem.....	1
2. Review of Related Literature.....	4
Introduction.....	4
Antecedent tools.....	4
Synectics™ .....	4
Operating Mechanisms of Synectics™ .....	5
Visual Synectics.....	6
Operating Mechanisms of Visual Synectics .....	7
Incubation .....	9
Aesthetic Experience .....	11
Origin of the Term "Aesthetics" .....	12
Viewer Based Research on the Aesthetic Experience .....	13
Why an Art Object Can Function as a Source of Inspiration or Idea Generation.....	14
Examples of Museum Exhibits that Provide Structured Opportunities to Heighten the Aesthetic Experience and the Opportunity to Generate Ideas .....	16
3. Methods and Procedures .....	19
Overview.....	19
Sources.....	19
Developing and Administering the Art Gallery Excursion.....	19
Description of the Sample Groups.....	20
Description of the Questionnaire .....	21
Procedures for Analyzing Data.....	21
Steps taken in Analyzing Data.....	21
4. Presentation and Analysis of the Data .....	23
Introduction .....	23
Analysis of Thesis Question 1 .....	23
Analysis of Thesis Question 2.....	28
5. Discussion .....	36
Further Study in Idea Generation.....	36
Aesthetic Development and Deliberate Creativity .....	37
6. References.....	40
<b>Appendix</b>	
A. Instructions to Participants.....	43

B. Survey Questions and Answers (Rich's) .....44

C. Survey Questions and Answers (InRoom) .....47

D. Concept Paper.....52

## List of Tables

1. Results of "Are you familiar with deliberate creativity and idea generating processes?"	24
2. Results of "How many personal challenges did you take into the gallery?"	24
3. Results of "Did any idea occur to you that might help solve your challenge?"	25
4. Results of "How many (ideas) per challenge?"	26
5. Results of "Did you interact with the facilitator?" & " Could you see yourself repeating this experience on your own?"	27
6. Number who answered "Did you have any unrelated inspirations?"	29
7. Descriptions of unrelated inspirations	29
8. Findings from "What did you discover about your relation to art?"	32
9. Findings to "Do you see this experience as a useful way to gain a personal connection to art?"	34

"Ask and you shall receive. Seek and you shall find. Knock and the door shall be opened for you."

Matthew 7:7

I dedicate this work to my family. My wife Kimberly and our daughter Bianca. They have given me the love, support, tolerance, time and space to complete this undertaking. To my mother and my brothers and sister-in-law, my father (in spirit), my niece and nephew for their unflagging belief in me.

I thank my friend, colleague and advisor Dr. Mary Murdock. Without your help, guidance and divergent dedication I would not have made the discoveries presented. To Dr. Gerard Puccio who leads our department with skill, compassion and deep ambition - which he shares with us all. Through our leaders at the International Center for Studies in Creativity(ICSC) I have accomplished more that I have ever imagined.

To the many scholars and colleagues who generously made their time, facilities and knowledge available: Donna Luther, Gerry Mead, Ted Pietrzak, Douglas Worts, Michelle Falzone, Sheri Rife, Sue Keller-Mathers, Marci Segal, Tyrone Balthazar, Laura Barbaro-Switalski, Tara Coste, Sid & Bea Parnes and Stephen Pritzker. To the groups who participated in the studies - the professionals at Rich Products Corp. and InRoom Plus (special thanks to Wanda Jones and Mike Amrose) and the many students at the ICSC. To the world-class art spaces in Buffalo that were the setting for our excursions: the Burchfield-Penney Art Center, the Albright Knox Art Gallery and Rich Products Corp. world headquarters.

A special thanks to my friend and colleague Bill Shephard, former Chief Program Officer of the Creative Education Foundation. Besides sharing his skill and background on



the history of creative problem solving, he graciously allowed me the flexibility to work on this thesis during my time as event producer of the Creative Problem Solving Institute.

## Chapter 1: Statement of the Problem

"Art unlocks the valves of sensation."  
Bacon

The purpose of this thesis was twofold: (1) to demonstrate that a person can generate useful ideas to a problem or challenge by looking at a number of art pieces in a gallery setting and (2) to examine whether or not the act of producing useful ideas through a gallery excursion acts as a bridge to a deeper and more personal relation to art. Questions that guided this study were:

- Will a creativity excursion in an art gallery yield useful ideas?
- Can useful ideas generated by looking at art help develop a new orientation to the art experience?

Literature researched for this study (Csikszentmihalyi & Hermanson, 1995; Friedberg & Yenawine, 1976; Housen, 1983; Perkins, 1994; Sternberg, 1989; & Worts, 1990, 1995) showed that there is interest in developing strategies to heighten a person's personal connection with art. Some of this research sought to identify a person's level of aesthetic development and others suggested activities to create a deeper engagement between the viewer and the art. Of all the previous research, Worts (1995) came closest to presenting viewer's experiences after an interactive art experience. What became apparent was that specific study was needed into whether a viewer's aesthetic development changed when given a suggested strategy, possibly demonstrating the validity of the strategy. This study offered viewers of art such an interactive strategy, newly developed by this author, and then through divergent questioning looked for a change in the viewer's orientation to art.

This study took Visual Synectics (Geschka, 1980), an existing divergent idea generating technique, and replaced pictures as the visual stimuli with objects encountered during a visit with a collection of art. Visual Synectics is considered an excursion technique. Excursion tools have been used frequently to provide novelty by moving people away from the problem at hand, providing an activity that is different and then connecting thoughts and insights from this activity back to the problem context. W .J. J. Gordon (1961), the initial developer of the Synectics™ model, created a practice which brought the deliberate production of analogies to bear on developing novel viewpoints to a suggested problem.

This study sought to discover if participants were led away from their expressed problem or challenge might they turn their tour of art into an excursion and form a new aesthetic orientation. Further exploration of techniques or a strategy such as the one used in this study has the potential to lead art viewers to a heightened aesthetic experience and potentially help them to feel more comfortable with the prospect of relating to art. Positive results in this study can prove useful to attendance building in galleries and museums, art education programs, and learning in a business environment. For the purposes of this study aesthetics was defined as the science of symbols (Baumgarten, 1954/1735). Dewey's (1934) definition of aesthetic experience, "a satisfying emotional quality because it possesses internal integration and fulfillment reached through ordered movement" (p. 38), was used for this study.

To achieve the learning goals set of at the beginning of this study, two sets of participants viewed art objects in different settings. Each group was oriented to the Art

Gallery Excursion with a specific set of instructions (Appendix A). Upon completing their excursion participants completed a questionnaire (Appendix B & C).

It was expected that participants would find success in generating ideas based on previous work already developed (Gordon, 1961; Gordon & Poze, 1976, 1980; Schaude, 1979). Less certain, but also expected, was a change in participants' orientation to the art experience. It was believed that participants might achieve a new orientation to art by finding success with the prescribed intent of the Art Gallery Excursion: to use the art as a stimulus to generate ideas to a personally relevant challenge. Flush from the success of having a personal "Aha" participants were likely to find that art could have a deeper and more personal relevance.

This chapter contained a statement of the problem for this thesis. The next chapters will provide elaboration on literature relating to this study, a description of the methods used in this study, an analysis of the data, a discussion and references.

## Chapter 2: Review of Related Literature

"It is only the single consciousness of the dreamer, who does not judge, does not acquit, simply relates, that unifies events and images."

Strindberg

### *Introduction*

This chapter contains a review of the literature related to the Art Gallery Excursion. The chapter is organized under the following major topics: antecedent tools and aesthetic experience. Topics under antecedent tools include Synectics™; operating mechanisms of Synectics™; Visual Synectics; operating mechanisms of Visual Synectics; and incubation. Topics under aesthetic experience include: origin of the term "aesthetics"; viewer-based research on aesthetic experience; why an art object can function as a source of inspiration or idea generation; and examples of museum exhibits that provide structured opportunities to heighten the aesthetic experience and the opportunity to generate ideas.

### *Antecedent tools*

There were three antecedent tools pertinent to the Art Gallery Excursion. One was Synectics™, a second was Visual Synectics and a third was incubation. The literature showed that each of these tools on their own has validity in the field of creativity (Gordon, 1961; Schaude, 1979; Geschka; 1980). Combining and adapting the three to make up the Art Gallery Excursion was a unique development. The definitions and developmental paths of each of these tools will be detailed in the following sections.

### *Synectics.™*

At the basis of Synectics™ was the work of a group of practitioners led by W. J. J. Gordon beginning in 1944. They identified and defined four recurrent psychological

states (involvement-detachment, deferment, speculation, autonomy of object) used in developing new solutions to problems. Their objective was to build operational mechanisms to manipulate these psychological states to deliberately increase production of useful ideas. Their research oscillated between gaining concrete insight about the psychological mechanisms and testing their validity in problem stating and problem solving situations (Gordon, 1961). George Prince joined the group in 1959 and soon thereafter Synectics™ Educations Systems was formed. Their goals were to continue their laboratory experiments, to apply their findings in the field of new product development and to teach their findings to others (Prince, 1967). The result of their work was the Synectics™ process that sought to provide the individual with a repeatable procedure which will increase the probability of his or her success and hasten his or her arrival at an innovative solution (Gitter, Gordon & Prince, 1964). Synectics™ uses analogies and metaphors to both analyze a problem and develop possible solutions.

#### *Operating Mechanisms of Synectics™*

Two operational mechanisms are used to accomplish these activities. The first, “making the strange familiar,” is designed to let the user better understand the problem by viewing it in a new way; the second, “making the familiar strange,” attempts to pull the problem solver away from the problem so that more creative solutions can be developed (Gitter, Gordon & Prince, 1964).

Making the strange familiar is “to arrive at an understanding of the problem” (Gitter, Gordon, & Prince, 1964, p. 2). The three basic procedures to achieve this understanding are:

- Analysis - breaking down a complexity into its component parts;

- Generalization - identifying significant patterns among the component parts; and
- Model-seeking - a means of arriving at generalizations and a way of understanding generalizations already made.

Making the familiar strange is to distort, invert or transpose the everyday ways of looking and responding which render the world a secure and familiar place. Three mechanisms are used to achieve this state:

- Personal analogy - to lose oneself in trying to become an object, thing, person or idea;
- Direct analogy - describes a clear and straight-forward relationship between the problem and some object, idea or thing; and
- Symbolic analogy or compressed conflict - a poetic two-word description on a high level of generality (Gitter, Gordon, & Prince, 1964, p. 10; Gordon & Poze, 1976, p. 44).

The goal of developing new viewpoints and possible solutions is achieved by following the steps of analyzing the analogies developed and then "force fitting" connections between the analogy output and the stated problem. Gordon (1961) related the above activities "to deliberately promoting the psychological states necessary for successful creative activity: involvement, detachment, deferment, speculation and commonplace-ness" (p. 159).

### *Visual Synectics*

A second antecedent tool to the Art Gallery Excursion was Visual Synectics (Geschka, 1980), later known as Visual Confrontation (Geshka, 1990, 1993). Developed by a team of researchers at the Bataille Institute in the 1970's, Visual Synectics was an

attempt to allow people without much training in creativity to quickly achieve the results of a number of useful ideas to solve a problem. (Schaude, 1979; Geschka, 1980).

### *Operating Mechanisms of Visual Synectics*

Visual Synectics operates in three main stages:

- Analysis and understanding of problem;
- Estrangement through a study of pictures; and
- Idea development through creative confrontation.

Visual Synectics works by helping people to gain an understanding of the problem (analysis phase). Then someone shows a picture to a group, having each group member describe in one or two sentences what he/she sees (estrangement phase), and finally the group tries to relate elements or structures from picture to problem under consideration going first from total impression to more and more detailed analysis. Geschka (1980) linked the terms "force fit" and "illumination" to confrontation. He further described it by writing:

“In the normal intuitive process the idea evolves when the individual is confronted with an object which is quite distant from the problem area. The idea which emerges is a product of intuitive confrontation. This is a most fruitful principle for idea generation” (p. 55).

Geschka's concept of confrontation related to the Synectics™ operating mechanism of making the familiar strange. Following the development of analogies:

“They must be ‘force-fitted’ to the problem if they are to be effective. Through the strain of this new fit the problem is stretched and pulled and refocused in order that it may be seen in a new way. If no deliberate attempt is made to find



relevance in apparent irrelevance, then one analogy can merely lead to another and another, and potentially fruitful viewpoints will be by-passed.”(Gitter, Gordon, & Prince, 1964, p. 8)

Geschka also connected estrangement to the Synectics™ method. Similar to Synectics’™ description of making the familiar strange, Geschka (1980) described estrangement as going away from the problem and includes incubation as a function.

Geschka (1980) made a key distinction in comparing Synectics™ and Visual Synectics, linked the development of word-based analogies only to Synectics™. In Visual Synectics estrangement occurs through “the study of pictures” (p. 57).

The Art Gallery Excursion diverged from the path of Visual Synectics by first creating more immediate access to idea generation by not asking participants to formally do an analysis of the problem but to simply state 1-3 challenges to which they wished to find some new ideas. Second, the study of pictures was replaced by experiencing art during self-directed gallery or museum tour done individually or in a group.

The Bataille researchers shift from Synectics’™ word-based analogy to using visuals as an operating mechanism illuminated their interest in making deliberate creativity easier to access and more effective without a formally trained leader.

“Synectics™ is not often applied due to a lack of skill in conducting the excursion phase where various analogies have to be played through. It is quite a lengthy method. People feel tired after the excursion and idea generation starts (after 1 to 1-1/2 hours). They are not aggressive in seeking ideas and tend to reject the procedure when good ideas do not arise immediately. . . .the stimulation effect of

carefully selected pictures tends to be higher than the stimulation through verbal analogies" (Geschka, 1980, p. 57-8).

To underscore this the developers of Synectics™ noted the challenges faced in keeping the group in the necessary psychological states, "The trained mind will . . . seize on any useful viewpoint implied by analogies. It is necessary for the group to develop the analogy to it fullest – a conscientious look at the analytical details of the analogy" (Gitter, Gordon & Prince, 1964, p. 17).

### *Incubation*

A third antecedent of the Art Gallery Excursion is the study of incubation. The act of walking through a gallery with solitude and quiet on the one hand and the richness of imagery in the art on the other related this part of the Art Gallery Excursion to the tradition of incubation.

The positive effects of incubation have been cited in history. Perhaps the best known was Archimedes' discovery of displacement which came to him while bathing after setting his work aside. On noticing the water rise as he stepped into his tub, he connected the observation to the unsolved problem of measuring an odd shaped crown (Gordon, 1974). Poincaré was an early recorder of the effects of incubation (Guilford, 1979). Incubation as part of a formal process of idea generation can be traced to the second step in a four-step thinking process of preparation, incubation, illumination, and verification developed by Wallas (1926):

"The incubation stage covers two different things, of which the first is the negative fact that during incubation we do not voluntarily or consciously think on a particular problem, and the second is the positive fact that a series of

unconscious and involuntary (or foreconscious or forevoluntary) mental events may take place during that period...the period of abstentions may be spent either in conscious mental work on other problems, or in a relaxation from all conscious mental work" (p.137).

For the purposes of his own controlled studies into the effects of incubation

Guilford (1979) defined it as:

"A period in the behavior of the individual during which there is no apparent activity on his part toward the solution of a problem, but during which or at the end of which there are definite signs of further attempts, with sometimes material progress toward a solution" (p. 4).

In relating the act of incubation to deliberate creativity, Parnes (1992) stated:

"An individual attempts to make as many relevant associations as possible to the problem at hand. We feed our associative mechanisms the best fuel for optimum operation, and we defer judgment so as to 'remove the brakes'. In a sense, incubation is related to both of these endeavors. In order to allow for what is called incubation, we get away from direct involvement in the problem for a period of time. By thus detaching ourselves we have, you might say, deferred judgment or closure on the problem. As the problem "simmers" in the back of the mind - "on the back burner" - we attend to other things and allow our senses full play upon our total environment" (p. 333).

Torrance and Safter (1990) developed a model for teaching based on incubation, which they saw as a gateway into suprarational thought. Their set of deliberate tools found in the three following stages 1. heightening anticipation; 2. deepening

expectations; and 3. keeping it going were all meant lead one toward a state of incubation which then leads to richer learning experiences.

Synectics™ had a similar view of incubation: "Once the analogy is forthcoming, the group diverts all its attention to it, deferring for a moment, all conscious thought of the problem-as-given" (Gitter, Gordon, & Prince, 1964, p. 16).

Perkins (2000) suggested that incubation might actually be a blanket term for many mechanisms: energy recovery, musing, fertile forgetting, pattern priming and unconscious mental marathons. He argued that while most experiments to detect the positive influence of incubation on problem solving do not yield positive results it may be that, "The experiments might inadvertently exclude the very mechanisms by which incubation usually happens" (p. 192).

Contrary to Perkins, researchers have demonstrated positive results. In a recent study of college professors' Wells (1996) demonstrated that creative output found increased productivity to be significantly correlated with the use of incubation.

#### *Aesthetic Experience*

I sought to discover if generating ideas led to a heightened personal orientation to art. A personal orientation to art can be described as an aesthetic experience. I also sought a useful definition of aesthetic experience.

Coleman (1983) noted, "That everything from a sunset to a urinal has been thematic in aesthetic experience suggests that any object can serve as the basis for an aesthetic experience" (p. 11). He further stated, "The literature of aesthetics is replete with examples which demonstrate the great variety which obtains among aesthetic experiences" (p. 11). His collection contained seven theories of aesthetics culled from

previous writings of philosophers such as Sartre, Beardsley, Dewey and Suzuki.

Coleman (1983) described Dewey's theory of the aesthetic experience as "clarified and intensified experience" (p.170).

Dewey (1934) dealt extensively with the aesthetic experience and he explained his view as follows:

"The experience itself has a satisfying emotional quality because it possesses internal integration and fulfillment reached through ordered movement. This artistic structure may be immediately felt. In so far, it is esthetic (author's spelling). What is even more important is that not only is this quality a significant motive in understanding intellectual inquiry and in keeping it honest, but that no intellectual activity is an integral event (is an experience), unless it is rounded out with this quality. Without it, thinking is inconclusive. In short, esthetic cannot be sharply marked off from intellectual experience since the latter must bear an esthetic stamp to be itself complete" (p. 38).

This thesis relied on Dewey's definition as a guide to represent aesthetic experience.

#### *Origin of the Term "Aesthetics"*

Many have ascribed the origin of the term "aesthetics" to Baumgarten who first used it in 1735 by developing the Greek word for perception (aesthesis) in his *Reflections on Poetry* (Bosanquet, 1917; Beardsley, 1966; Csikszentmihalyi and Robinson, 1990).

Baumgarten (1735/1954) attempted an aesthetic theory based on Cartesian principles and using the rationalist deductive method with formal definitions and derivations. He stated, "Therefore, *things known* are to be known by the superior faculty as the object of logic; *things perceived* [are to be known by the inferior faculty, as the object] of the science of

perception, or *aesthetic*." (p. 78). Given these views, a science of perception might be considered a useful description of an operational mechanism of the art gallery experience.

*Viewer-based Research on the Aesthetic Experience*

There are few studies of the aesthetic experience from the viewer's perspective. Housen (1979) analyzed studies of aesthetic experience conducted by Parsons (1978), Clayton (1974), Coffey (1968) and Brunner (1975). The first two studies described progressive stages in aesthetic understanding. The second two studies focused on a few dimensions in aesthetic understanding and tracked those dimensions over stages or disparate groups. From this research and a number of her own studies with viewers of all ages and social backgrounds, Housen (1983) developed a matrix of aesthetic stages and levels by using subjects verbal reactions to selected art objects. Her purpose was to map an authentic position of a person's aesthetic experience based on his/her own statements and perceptions. Others who have examined aesthetics from the viewer's perspective include Csikszentmihalyi and Robinson (1990) who conducted a study of the aesthetic experience by arts professionals (curators, historians, educators), Worts (1990) who developed and studied the effects of a number of art exhibits that used devices that led to enhanced viewer interaction and Bruder and Ucok (2000) who followed participants around a museum, recorded their verbatim statements about what they were experiencing and analyzed their statements.

Many of the viewer-based studies appeared to follow Baumgarten's reasoning by stating in some form that perception, when viewed through the lens of aesthetic experience, has value because of its personal or idiosyncratic nature. Arnheim (1969) supported this by stating, "Certain cognitive operations called 'thinking' are not the

privilege of mental processes that operate above and beyond perception itself, but the essential ingredients of the perception act" (p. 13). Housen (1983) noted, "Dealing with a work of art, then, becomes not unlike interacting with any other live mortal being (bringing) certain expectations as well as feelings, so to, it is possible with works of art to bring analogous expectations and feelings" (p. 10). Kepes (1965) noted that art is a symbolic form perceived by the senses that requires interpretation sensorally, intellectually and emotionally to support a multi-disciplinary approach to experiencing art. Bruder and Ucock's (2000) study of conversations with art viewers led him to conclude:

"Anecdotal evidence indicates the possibility of a systemic relationship between art and human subjectivity, calling for formal inquiry into the fact and manner of people's employment of images as a material substrate in the symbolic organization of the individual's self-structure" (p. 343).

*Why an Art Object Can Function as a Source of Inspiration or Idea Generation*

The literature also demonstrated that a work of art is deliberately rich in metaphoric imagery. The 20<sup>th</sup> Century painter Kokashka described the art experience by saying "The life of the soul is expressed by man in his art. . .The mystery of the soul is like that of a closed door. When you open it, you see something which was not there before" (Ashton, 1984, p. 17). Ashton's text compiled the quotes of over 100 artists, many of who related the similar motivation of having their artwork spur a non-linear unique experience for each viewer. Worts (1995) amplified:

"To paraphrase Picasso (and many other artists for that matter), in producing an artwork, the artist carries the creative process *half* (author italics) way – it is the

responsibility of the viewer to complete the process. This visitor centered half of the creative process is based on the personalizing of symbolic objects" (p. 166).

Perkins (1994) explained this same inspiration by stating:

"Art tends to be multiconnected. We can find links with many things-social issues, aesthetic concerns, trends of the times, personal commitments, even science and mathematics, sometimes. Art is generally richly connected culturally and historically. The connections range from ones easily accessible to most human beings to arcane references only penetrable by a scholar of the place and time of origin. The multiconnectedness of art creates an opportunity to bridge thinking dispositions across diverse other contexts explored in tandem with the work of art" (p. 83).

Perkins (1994) and Bruder and Ucock (2000) agreed that an art object tends to reveal higher levels of meaning with increased and more focused viewing. Museums have sought ways to assist viewers in focusing and spend more time with their collections. Sternberg (1989) recognized that the museum is tailor-made for an open-ended experience that encourages interaction and invites viewers to become directly involved. In another instance, Worts (1995) told of 12,000 "share your reaction cards" collected at the Art Gallery of Ontario over nine months. He stated:

"The bulk of the comments are personal and reflective...often there is great sensitivity and intensity in the responses...people seem to want to see themselves reflected, either literally or symbolically in their imagery - and in their writing for that matter" (p. 170).



Friedberg and Yenawine's (1976) work with interactive exhibits for grade school students yielded stimulating and creative experiences by allowing one to freely express and value individual feelings or reactions without fear of being judged right or wrong. Bruder and Ucok (2000) further noted, "Viewers' interpretive ventures are discursive accomplishments, means by which the aesthetic dimension of life is integrated into the overall life experience" (para. 110).

The statements in this section demonstrated the art experience as inspirational because the artists, educators and curators recognized that the art is symbolically loaded. They see an art object is an idea/inspiration factory. Viewers bring their story to the art object's story and new stories of varying degrees of intensity are created and recreated with each subsequent viewing.

*Examples of Museum Exhibits that Provide Structured Opportunities to Heighten the Aesthetic Experience and the Opportunity to Generate Ideas*

As noted in the previous section, there are those who believe in the power of the individual viewer to make valid personal connections with art. This belief is not well supported in the formal literature regarding art museums. ERIC searches using the terms "art and participation" plus "art and creativity" yielded just 46 records of which only 10 fit the parameters of this thesis. Worts (1995) added:

"Museums have traditionally honored certain types of meaning-making processes with museum objects but have largely ignored others. One hypothesis...is that museums have created an imbalance in how the public experiences symbolic objects and that this imbalance needs to be corrected" (p. 195).

One might speculate that an art museum, by using titles, dates, genres and technique descriptions, might have seen the art historical experience or the art making experience as the most significant pathway to creating a rich viewer experience.

Csikszentmihalyi and Hermanson (1995) stated, "Museum visitors may at first attend an exhibit because of the curiosity and interest. But unless the interaction with the exhibit becomes intrinsically rewarding, the visitors' attention will not focus for positive intellectual or emotional changes to occur" (p. 37).

Some remain committed to following this path of providing structured opportunities to further one's aesthetic experience when viewing art. As education curator at the Art Gallery of Ontario, Worts (1995, 1997) constructed exhibits that offered many alternatives to augment to viewing experience. Sternberg (1989) noted some of the specific methods that might be used including creative drama, game playing, creative writing, and questioning strategies.

Other exhibits which have sought to elicit similar experiences were found in Worts, (personal communication, July 17, 2001) and Freidberg & Yenawine (1976): Inspiration Station - Te-papa Museum of New Zealand; Useum - Burchfield-Penny Art Center (Buffalo, NY); The Children's Museum of Indianapolis; Albright-Knox Art Gallery (Buffalo, NY); University of Kansas at Lawrence; the Brooklyn Museum; and the Metropolitan Museum of Art in New York City.

In conclusion, this literature chapter detailed the lineage and the operational mechanisms of the Art Gallery Excursion as shown in earlier creativity literature. Because a significant objective of this thesis was to discover if the excursion could heighten one's aesthetic experience, this section provided a discussion and definition of

the aesthetic experience. It also gave examples of research that sought to define the aesthetic experience from the viewer's perspective. Finally, it contained examples and described the value of interactive experiences with art that others have previously undertaken.

## Chapter 3: Methods and Procedures

"Art is the senses' grindstone, sharpening the eyes, the mind, and the feelings."  
Moholy-Nagy

### *Overview*

The purpose of the Art Gallery Excursion was to discover if looking at art could lead to the generation of useful ideas and if the experience of the excursion heightened one's personal understanding of art. The purpose of this thesis was to answer the following questions: 1. Will a creativity excursion in an art gallery yield useful ideas? and 2. Can useful ideas generated by looking at art help develop a new orientation to the art experience?

The methods described in this section will demonstrate the objective of describing, clarifying and interpreting the studies conducted. The type of research conducted to answer the questions posed by this thesis was descriptive and qualitative analysis techniques were used (Miles & Huberman, 1994).

### *Sources*

The Art Gallery Excursion was developed by synthesizing my past experience in producing events that focused on bringing original art and audiences together with my knowledge of deliberate creativity techniques. The design of the excursion used many operational mechanisms created by Geschka (1980, 1990, 1993) with the significant difference of replacing photos displayed in a group setting with a personal tour of a number of art objects in a gallery or museum.

### *Developing and Administering the Art Gallery Excursion*

A pilot study was developed with Dr. Mary Murdock at the International Center for Studies in Creativity at Buffalo State College in Buffalo, NY. The pilot study was

conducted in March of 2000 and administered to 21 participants that included students of creativity and members of the community at the Burchfield-Penny Art Center in Buffalo, NY using its eclectic collection of paintings by Charles Burchfield, artifacts from the Roycroft craft movement and temporary exhibits of modern art. In this pilot study we developed and adjusted the excursion instructions and the survey questions for the future administration of this study. After the pilot study, adjustments were made and the excursion was administered on two separate occasions: September 1, 2000 and March 29, 2001.

The first excursion was conducted at world headquarters of Rich Products in Buffalo, NY. This location holds a substantial collection of original 20<sup>th</sup> century art that is on display in the halls and common areas of the building. The second excursion was conducted at the Albright-Knox Art Gallery in Buffalo, NY known the world over for its broad collection of original art objects with a specific concentration of 20<sup>th</sup> century art.

At the beginning of each excursion instructions (Appendix A) on how to participate in the Art Gallery Excursion were given verbally to the entire group.

#### *Description of the Sample Groups*

Groups with two different backgrounds in problem solving experience and work place environments were used to seek a wider comparative sample. Each of the two groups consisted of male and female adults over the age of 21 with a total sample size of 30. The only selection criteria used in this study was to seek a high and low level of training in deliberate creativity. The first excursion consisted of 12 managerial level employees of Rich Products Corporation in Buffalo, NY. This group also belonged to a team of innovation specialists with varying levels of training in creative problem solving

tools and techniques. The excursion was held in the hallways of the building containing approximately 50 paintings.

The second excursion was made up of 18 employees of In-Room Plus, a Buffalo, NY company that packages and distributes food to hotels and other outlets. Participants ranged from owners to assembly line workers. They had little to moderate experience with creative problem solving tools. Their excursion took place at the Albright-Knox Art Gallery.

#### *Description of the Questionnaire*

Upon completing their Art Gallery Excursion, each participant completed a questionnaire that reflected this project's questions and learning goals. Based on answers to questions posed after the excursion at Rich's, the questionnaire was expanded from six to eight questions (Appendix B & C) in an attempt to attain more information related to quantifying idea production, the repeatability of the excursion and each person's art experience.

#### *Procedures for Analyzing Data*

Quantitative and qualitative models were developed to analyze the data based on tables and techniques developed by Miles and Huberman (1994) and Housen (1983). Data from each excursion were analyzed separately and then compared for similarities, differences and new learnings.

#### *Steps Taken in Analyzing Data*

Participants' answers were first sorted by their relation to thesis question 1 or thesis question 2. Separate approaches were used to analyze the two thesis questions.

In analyzing question 1 (a convergent question) the answers were noted for yes or no or the quantity of production. The two sample groups were analyzed separately and then compared for additional findings. The findings were then placed in tables.

In analyzing question 2 (a divergent question) the answers to each of the relevant questions from each group were listed out separately. Answers from groups were personal, reflective and strikingly similar making a comparison for differences between groups unnecessary. Each complete answer was listed. An examination of complete answers, and fragments of answers followed. The purpose was to identify similar answers and similar themes. Individual words were examined for their descriptive value, i.e. did a word signify taking action or a change in personal aesthetic orientation. Themes were identified based on clustering similar answers

## Chapter 4: Presentation and Analysis of the Data

"Painting remains there like a question. And it alone gives the answer."  
Picasso

### *Introduction*

This chapter will present the results of and an analysis of the data gathered from the two excursions described in the methods and procedures. Answers from the first excursion will be referred to as "Rich's" and answers from the second will be referred to as "InRoom." This chapter will include the following sections: Analysis of Thesis Question 1 and Analysis of Thesis Question 2.

The learning goals of this thesis were 1. Did the excursion help produce ideas that could help solve personal challenges? and 2. Did participants experience a change in their orientation to art as a result of taking the excursion? Answers to question 1 were convergent in that all of the answers asked for a yes or no or a specific quantity. Analysis of question 1 relied on compiling and gridding the answers from both samples to define the level of success in answering the question. Answers to question 2 were divergent in that most relied on the participants own words. Analysis began with noting the quantity of responses and then looked for clusters of similar statements to help develop themes. These themes would ultimately point to whether the goals of question 2 were achieved.

### *Analysis of Thesis Question 1*

The purpose of thesis question 1 was to discover "Will a creativity excursion in an art gallery yield useful ideas?" In the Rich's survey (Appendix B) answers to questions 1, 2, 3, and 5 supplied the data. In the InRoom survey (Appendix C) answers to questions 1, 2, 3, 4 and 8 supplied the data.



Table 1

*Results of "Are you familiar with deliberate creativity and idea generating processes?"*

	Rich's	InRoom
	N = 12	N = 18
Yes	11	8 <sup>a</sup>
No	1	7
No Answer	NA	3

<sup>a</sup> 4 participants qualified their familiarity: "a few seminars 5-7 years ago, "I have my bfa in fine art, "more like a common topic," "we all do it whether we realize it or not."

Table 2

*Results of "How many personal challenges did you take into the gallery?"*

	Rich's	InRoom
Quantity		
0	NA	3
1-3	11	12
4-5	1	2 <sup>a</sup>
Unusable		1 <sup>a</sup>

<sup>a</sup> participant answered "all"

Data in Table 1 indicated two different levels of familiarity to deliberate creativity. In the Rich's group many had been trained in the problem solving processes or

are part of a team that facilitates meetings for their co-workers. The InRoom group had no professional contact with problem solving processes.

This variance in familiarity did not appear to factor into their success with using the excursion to generate ideas. Each group, for the most part, was able to generate challenges (Table 2). Each group had a high rate of "yes" answers to "Did ideas occur to help you solve your challenges?" (Table 3).

Table 3

*Results of "Did any idea occur to you that might help solve your challenge?"*

	Rich's	InRoom
Yes	10	15 <sup>b</sup>
No	2 <sup>a</sup>	3 <sup>c</sup>

<sup>a</sup> One of those who answered no reported, "I think I approached this wrong"

<sup>b</sup> 2 participants used explanations: "Maybe in the future; "Partially, I could look at any piece of art and say something positive - no negative thoughts"

<sup>c</sup> 2 "no" answers with explanations: "However I would like to review the ideas I generated," "except perhaps to put more order back in my life"

Although the question of quantifying the idea generation per challenge yielded some specific numbers, both groups also had incomplete and blank answers (Table 4). In fact many who answered "yes" to familiarity with creativity techniques were among those who did not complete quantity of ideas question. The fact that the InRoom group had 9 blank answers for this Question 1 indicated something about their familiarity with creativity processes. Perhaps those who were not trained in generating ideas to a specific challenge may not have had the orientation or confidence to "count" ideas that appear useful but do not conclusively solve the challenge - leading to confusion over how to

quantify their idea production. Inconclusive answers to this question might also be a function of the survey design in that the question that was not clearly stated to participants.

Table 4

*Results of "How many (ideas) per challenge?"<sup>a</sup>*

Quantity of Ideas Generated	Number of participants for each quantity	
	Rich's	Inroom
Blank	2	9
0	3	2
1	0	9
2	3	2
3	1	0
4	2	0
5	1	1
6-more	2	0
non-quantity	1	NA

<sup>a</sup> there will be more answers than the total number of participants because the quantities in some cases were for each challenge

Participants were asked if they had a need for further instructions or orientation in order to successfully complete the excursion (Table 5). It was useful to ask a question of this sort to learn if the instructions had something to do with preventing participants' success in generating ideas. In the Rich's survey the question was asked, "Did you interact with the facilitator?" For the purposes of this study, interact was defined as the need to seek instructions on how to properly complete the excursion from the facilitator.

The question was reworded for the InRoom survey to read, "Could you see yourself repeating this experience on your own?" In each case participants indicated a high level of understanding of the set of instructions given at the beginning of the excursion. This was further confirmed by data that indicated ability to generate challenges and the high occurrence of ideas generated.

Table 5

*Results of "Did you interact with the facilitator?" (Rich's)*

---

Yes	3 <sup>a</sup>
No	9

*Results of " Could you see yourself repeating this experience on your own?" (InRoom)*

---

Yes	17 <sup>b</sup>
No	1

<sup>a</sup> just 1 of the participants interacted with the facilitator for the purpose of instruction.

<sup>b</sup> this includes a "possibly" and a "maybe"

Following the generational path from Synectics™ to the Bataille adaptations the Art Gallery Excursion appeared to offer an easy to understand method of divergent idea production. The design of the excursion sought to make use of proven operational mechanisms to help participants succeed in generating ideas. The artwork encountered on the participant's excursion provided the metaphoric material to enter into the confrontation experience. The actual time spent on the tour encountering art provided the incubation experience. The instruction to seek connections at the end of the excursion provided the opportunity to force fit what had been written. The novel aspect of the Art Gallery Excursion was the replacing of photos used by the Bataille researchers (Geschka,

1980) with a tour of original art. The differences included increased incubation time, an individual experience as opposed to a group experience and the use of original art.

This thesis indicated a number of things with regards to the value of the Art Gallery Excursion as a method of idea generation. Data supported that nearly all participants were able to develop a challenge and generate ideas. The Art Gallery Excursion was easy to self-administer as few participants needed any further orientation than the instruction set. At the most basic level, ideas were generated signaling a simple closure to the deliberate creativity purpose of the excursion.

#### *Analysis of Thesis Question 2*

The second question posed by this thesis "Can useful ideas generated by looking at art help develop a new orientation to the art experience?" was answered by responses to questions from both groups that specifically asked what participants "discovered about your relation to art." Related questions in the Rich's survey were 4 and 6; the InRoom survey included 5, 6, and 7.

The questions in this section followed a progression of moving participants from relating their idea generation specifically to their challenge(s) to any "unrelated inspirations" and then to a change that might have occurred in their "relation to art."

Table 6

*Number who answered, "Did you have any unrelated inspirations?"*

	Rich's	InRoom
Yes	9	10
No	3	7
Unreadable		1

Table 7

*Descriptions of unrelated inspirations*

Theme	Selected Comments
<b>Excursion related</b>	<p><i>Rich's</i></p> <p>Surprised I got any "hits" - thought all would be unrelated</p> <p><i>InRoom</i></p> <p>People need to be familiar with the whole creative process of problem solving by looking at their challenges objectively</p> <p>I just had a bunch of words that came to me as I went through</p>
<b>Art Related</b>	<p><i>Rich's</i></p> <p>Amazing the interpretations of each art work</p> <p>Inspirations were different for each piece of art</p> <p><i>InRoom</i></p> <p>I have never actually stopped and looked at art</p>

The inspiration to create again - I felt the urge to start using it again

You can find beauty in almost anything even if it is (an artwork) you would never choose for your own

My perception of art pieces was broadened. Each piece of art was viewed from many more perspectives

### Personal reflection

#### *Rich's*

I need to smile more

There are many more and bigger challenges in the world (not just mine)

Neat reflections on life with each piece of art

Realization how critical-having the time to be creative is to my soul

#### *In Room*

I had a treat: a memory of a cottage that I visited often when I was a child

Found how happy I can be in the environment

Noticing that the Rich's participants reported unrelated impressions at a higher rate than the InRoom group (Table 6), there again appeared to be some relationship to familiarity with creativity tools and having unrelated inspirations occur while looking at art. Turning to the actual comments (Table 7), some themes were discerned. These themes were: excursion related, art related and personal reflection.

In examining the comments I noticed a positivism about the experience that ranged from expressions of surprise at having inspirations, "a treat" over unexpected memories, to wishes about having more creativity. Perhaps those who commented were participating in Dewey's (1934) aesthetic experience that has "a satisfying emotional

quality because it possesses internal integration and fulfillment reached through ordered movement" (p.38). It was also interesting that I could map the universe of comments to the same progression from excursion, to the art they were looking at, to their own personal situation. This appeared to point to the metaphoric strength of the artwork when it was linked with a personally relevant motivation (the challenge). Indications were that a participant got what her or she needed for their challenge and then began an exploration in whatever direction was most opportune for them: changing things in their life, seeking more creativity, reflecting on the mechanism of the excursion, or musing further on the qualities of the art they have experienced.

One response to the "unrelated impressions" was interesting to note from a criteria set by Geschka (1980) regarding the choice of images. He noted that an attempt should be made to avoid pictures that are likely to provoke negative emotions. In addition, the best pictures are probably those that either show or imply motion, without emphasizing human figures. The InRoom excursion took place at the Albright-Knox Art Gallery and it focused on their noted collection of modern paintings. One participant encountered an exhibit of paintings by Leon Golub. His body of work depicts human suffering. The participant who encountered the work stated when asked for unrelated comments, "The Golub exhibit really opened my eyes to the possibilities of violent acts. The reality of the situation is that these disgusting controversial things occur, and that's the bottom line. We have to find solutions and preventative measures especially in schools." This is not to say that the emotions indicated by this participant's statements are negative. It does indicate that highly charged images can lead to a single focus and curtail the open-ended metaphoric value of less narrative images.



Table 8

*Findings from "What did you discover about your relation to art?"*

	Rich's	Inroom
Quantity		
Response	12	15
No Response	0	3
<b>Theme</b>	<b>Selected Comments</b>	
<b>Art</b>	<p><i>Rich's</i></p> <p>I feel more intimately involved with art when I really look at it</p> <p>I found I can relate to art more than I ever thought</p> <p>If I take the time to relax and let it come to me as I look at it - I get a lot out of (art)</p> <p>Need to take the time to study and appreciate</p> <p><i>InRoom</i></p> <p>Art is rather calming; it clears my mind</p> <p>I have never connected with art but I am very interested in everything I have experienced today</p> <p>I was drawn to the paintings that gave me peace of mind; I was able to lose myself in them and enter a new level</p> <p>I don't bring enough art into my life</p>	
<b>Personal Meaning</b>	<p><i>Rich's</i></p> <p>We need to take time to enjoy</p> <p>I need to take time and smell the roses</p>	

It helps to put your words down

*InRoom*

Try to understand more openly other opinions

Interesting and open

I didn't realize until today how critical I can be

I've been too restricted

Table 8 supports that the progression from away excursion continued, leaving behind aspects of the tool and focusing on art and personal meaning. The action words such as *discovered*, *connected*, *drawn to*, *take time*, *appreciation* illustrated the change in the participants. Most poignant perhaps was the person who stated, "I have never connected with art but now I am interested..." Here is an unambiguous statement indicating a new orientation to art. To lesser degrees I found indications of change in nearly everyone who commented.

To build on the experience gained from the Rich's excursion, a question was added to the InRoom survey to seek further information on participant's personal connection to art (Table 9).

Table 9

*Findings to "Do you see this experience as a useful way to gain a personal connection to art?"*

---

Yes	17
No	1 <sup>a</sup>

---

**Selected comments - Indications of change in perspective**

---

I've always looked at the academic - now I'm free to see other things

I see a personal connection in learn(ing) different things about art

The personal connections and gains are limitless

Every time you look at art, either the same piece or different pieces, you can take many things from it; ex. Pain, anger, happiness

By taking pride in everyday projects

I was able to view and interpret art in a different way

It was better than I originally thought it would be

The visit recreated awareness of the gallery

It almost forced me to look at the art and dissect it. Something I would probably not have done

<sup>a</sup> The participant who disagreed stated, "more of a way to gain a better perspective on the directions my thoughts and ways of thinking have been in past few months."

Table 9 demonstrates a generous recounting of the action of change that took place while looking at a painting or a three-dimensional object. Responses to this question indicate that participants changed their orientation to art through the excursion. Actions noted in their responses such as *forced*, *recreated*, *take pride*, *take many things*, *gain*, *reveals*, *creates*, and *instills* were used to indicate real experiences while looking at art. Personal connections included: *painting instills a feeling*, *art reveals aspects of*

*myself, I see personal connection to learning about art, gain a better perspective on my thoughts, you can take many things (emotions) from it.*

To sum up the findings on the second question, the data presented indicated a mid to high occurrence of unrelated thoughts organized under the themes of excursion, art and personal. Participants' answers also indicated in high frequency that changes took place in their orientation to art. For some this happened purely on an artistic level for others this included a personal revelation.

## Chapter 5: Discussion

"What mystic fruit his acres yield  
At midnight and at morn?"  
Emerson

A great number of opportunities were presented by the findings of this study. The following discussion will focus on the topics further study in idea generation and further study in aesthetic development.

### *Further Study in Idea Generation*

While the data indicated that the Art Gallery Excursion was an easily repeatable experience that helped generate new ideas, further study might yield information as to the quality and quantity of the ideas generated.

- Measurements of novelty and quantity-based scales such as the *Torrance Tests of Creative Thinking* (Torrance and Safter, 1999) might be employed to measure these dimensions.
- A larger sample might be used in the same setting to increase consistency in the data.
- A comparison study might be conducted judging ideas generated to the same challenge using the original Visual Confrontation and the Art Gallery Excursion.
- Deeper investigations into the actual challenges and ideas generated by a participant might lead to understanding the connection between a subject's knowledge of deliberate creativity processes and finding new and useful ideas.
- Another approach might be to look at idea output from all participants using the same challenge. This type of study might determine if particular art works yielded similar answers.

- A sort of triangulation might be achieved by matching challenge, idea and art work. We might find that similar ideas were generated by looking at different art works.
- Do follow-up interviews to learn more about their actual experience.
- More study could be done by examining the removal of the opportunity for a participant to generate his or her own challenge.
- We might determine if a non-selected challenge hinders idea output in the areas of quantity and quality.

#### *Aesthetic Development and Deliberate Creativity*

The design of Art Gallery Excursion was a type of force fit in itself. By fitting the divergent idea generation technique of Visual Synectics with a tour of art objects, I was attempting to help people get over any personal prejudice or fear they bring into an art experience. The Art Gallery Excursion was an attempt to displace the feeling that one had to be educated in art history or styles of art making to have a personally fulfilling experience with art by using a personal challenge as the only motivation. Those with high levels of aesthetic development might see the Art Gallery Excursion as a familiar experience but my interest in pursuing this study was based on my years of working in and around the professional art world. My experience in bringing art to the general public told me that many in our culture do not have the same understanding of art, as do professionals who are presenting art for public consumption. The Excursion is not an attempt to make people into arts professionals. It is a modest opportunity to shine a light on each individual's personal view of each artwork they may encounter. The personal challenge first creates the motivation and possibly defocuses any feeling of "not knowing

enough" to fully experience art. This study demonstrated that it was simple enough to follow and complete successfully. Participants were also able to have lots of personal and unrelated impressions. Perhaps the Excursion helped to open the pipe of inspiration a bit more and allow the random perceptions to flow onto their paper. Given a chance to reflect on their musings participants were faced with the fact that, regardless of their prior orientation to art, they had an enriching experience with art.

Further aesthetic development investigations can be made into the reported change in participants' orientation to art. In the following list, the first three suggestions relate to establishing a baseline of information about what each person brings to the art experience and why this strengthens analysis of what happens.

- A more detailed questionnaire can be developed asking about one's past experience with art.
- Important questions might focus on years of art education, when in their life it happened, frequency in visiting an art museum, and familiarity with art history.
- It might also be beneficial to ask informal questions like favorite artists and favorite types of art. Answers to these questions might then be analyzed by art professionals to set levels of aesthetic experience. We might also attempt to use these comments to seek a match into Housen's (1983) model.
- Participants might be video taped during the excursion to help gather a more formal record of time spent with each work of art and to help the participant reconstruct their excursion by linking what they wrote with the particular work of art.

- Other recording media might be introduced such as personal microphones to eliminate the need to hold any paper or write to obtain more context and detail about experience.
- Further questioning upon exiting the Art Gallery Excursion might focus on what has changed for them with regard to encountering art or what is it about the excursion that led to a change in viewing art.
- Follow-up interviews might be conducted after a set period of time has elapsed to learn if the change in aesthetic orientation has been maintained.

In conclusion, this thesis sought to study if replacing using pictures in a creativity excursion with a tour of original art might lead to idea generation. Also studied was any change in a participant's orientation to art. Both of these questions were answered positively based on the data presented. I also discovered a small group of researchers and authors who see the possibility of art as a bridge to representing "all the everyday events, doings and sufferings that are universally recognized to constitute experience" (Dewey, 1934, p. 3). This interesting lineage spans from the philosopher Baumgarten (1735/1754) who first used the word aesthetics in relation to art as a way to describe "a science of perception" (p. 78), to Dewey's well-known *Art as Experience* from 1934 to Arnheim's *Visual Thinking* through the present where we find a variety of museum professionals and authors examining the viewer's relation to the art experience. Poincaré (<http://www-history.mcs.st-andrews.ac.uk/history/Mathematicians/Poincare.html>) said, "It is by logic that we prove and by intuition that we discover" (para. 37). I hoped with the Art Gallery Excursion to create a ground where one was led to his or her own intuition through the playful logic of deliberate creativity.



## References

- Arnheim, R. (1969). *Visual thinking*. Berkley: University of California.
- Ashton, D. (Ed.). (1985). *Twentieth-century artists on art*. New York: Pantheon.
- Baumgarten, A. G. (1954). *Reflections on poetry*. (K. Aschenbrenner & W. B. Holther, Trans.). Berkley: University of California. (Original work published 1735).
- Beardsley, M. C. (1966). *Aesthetics from classical Greece to the present*. New York: Macmillian.
- Bosanquet, B. (1917). *A history of aesthetic* (4th ed.). London: G. Allen & Unwin Ltd.
- Bruder, K. A. & Ucock, O. (2000). Interactive art interpretation: How viewers make sense of paintings in conversation. *Symbolic Interaction* 23(4) pp. 337-358.
- Brunner, C. (1975). *Aesthetic judgement: Criteria used to evaluate representational art at different ages*. Unpublished doctoral dissertation. Columbia University, New York.
- Coffey, A. W. (1968). A developmental study of aesthetic preferences for realistic and nonobjective paintings. *Dissertations Abstracts International* 29(12b) 4828-B.
- Coleman, E. J. (Ed.). (1983). *Varieties of aesthetic experience*. New York: University Press of America.
- Clayton, J. R. (1974). *An investigation into the developmental trends in aesthetics: A study of qualitative similarities and differences in young people's responses to questions concerning the visual arts*. Unpublished doctoral dissertation. University of Utah, Salt Lake City.
- Csikszentmihalyi, M. & Robinson, R. E. (1990). *The art of seeing: An interpretation of the aesthetic encounter*. Malibu, CA: J. Paul Getty Museum.
- Csikszentmihalyi, M. & Hermanson, K. (1995). Intrinsic motivation in museums: What makes visitors want to learn. *Museum News* 74(3) 35-37, 59-62.
- Dewey, J. (1934). *Art as experience*. New York: Capricorn.
- Friedberg, A. & Yenawine, P. (1976). The redefined art of museum learning. *Teacher*, 94 (4). 33-39.
- Geschka, H. (1980). Methods and organization of idea generation. In S. Gryskiewicz, (Ed.), *Creativity development week II* (pp. 49-61). Greensboro, NC: Center for Creative Leadership.

- Geschka, H. (1990). Visual confrontation: Ideas through pictures. In M. Oakley, (Ed.), *Design management: A handbook of issues and methods*. (pp. 250-254). Oxford: Basil Blackwell.
- Geschka, H. (1993). The development and assessment of creative thinking techniques: A German perspective. In S. Isaksen, M. Murdock, R. Firestein, & D. Treffinger (Eds.), *Nurturing and developing creativity: The emergence of a discipline*. (pp. 215-236). Norwood, NJ: Ablex.
- Gitter, D. L., Gordon, W. J. J., & Prince, G. M. (1964). *Operational mechanisms of synectics*. Cambridge, MA: Synectics Inc.
- Gordon, W. J. J. (1961). *Synectics the development of creative capacity*. New York: Harper & Row.
- Gordon, W. J. J. (1974). Some source material in discovery-by-analogy. *Journal of Creative Behavior* 8(4), 239-257.
- Gordon, W. J. J. & Poze, T. (1976). *The art of the possible*. Cambridge, MA: Porpoise.
- Gordon, W. J. J. & Poze, T. (1980). *The new art of the possible: The basic course in synectics*. Cambridge, MA: Porpoise.
- Guilford, J. P. (1979). Some incubated thoughts on incubation. *Journal of Creative Behavior* 13(1) 1-8.
- Housen, A. (1979). *A review of studies in aesthetic understanding*. Unpublished study. Harvard University, Cambridge, MA.
- Housen, A. (1983). *The eye of the beholder: Measuring aesthetic development*. Unpublished doctoral thesis. Harvard University, Cambridge, MA.
- Kepes, G. (1965). *Education of Vision*. New York: Brazillier.
- Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.
- Parnes, S. J. (1992). *Visionizing*. Buffalo: CEF Press.
- Parsons, M., Johnston, M., & Durham, R. (1978). Developmental stages in children's aesthetic responses. *Journal of Aesthetic Education* 12. 83-104.
- Perkins, D. N. (1994). *The intelligent eye: Learning to think by looking at art*. Santa Monica, CA: Getty Center for Education in the Arts.

- Perkins, D. N. (2000). *Archimedes bathtub: The art and logic of breakthrough thinking*. New York: W. W. Norton.
- Prince, G. M. (1967). *The practice of creativity*. Cambridge, MA: Synectics, Inc.
- Schaude, G. R. (1979). Methods of idea generation. In S. Gyskiewicz, (Ed.), *Proceedings of creativity week I, 1978*. (pp. 1-8). Greensboro, NC: Center for Creative Leadership.
- Sternberg, S. (1989). The art of participation. In N. Berry & S. Mayer, (Eds.), *Museum education: History, theory and practice*. (pp. 154-171). Reston VA: National Art Education Association.
- Torrance, E. P. & Safter, H. T. (1990). *The incubation model of teaching: Getting beyond the aha!* Buffalo: Bearly Limited.
- Torrance, E. P. & Safter, H. T. (1999). *Making the creative leap beyond...* Buffalo: CEF Press.
- Wallas, G. (1926). *The art of thought*. New York: Holt.
- Wells, D. H. (1996). Forced incubation. *Creativity Research Journal* 9(4). 407-409.
- Worts, D. (1990). In search of meaning: "Reflective practice" and museums. *Museum Quarterly* 18(4). 9-20.
- Worts, D. (1995). Extending the frame: Forging a new partnership with the public. *Canadian Review of Art Education* 22(2). 164-191.
- Worts, D. (1997). Assessing the risks and potential of the oh! Canada project. *Muse* 25 (2). 19-23.

## Appendix A

### Instructions to Participants in Art Gallery Excursion

- You will be touring a collection of art for the next 45 minutes.
- You are free to go anywhere in the museum and to take up to 45 minutes to complete your tour; spend as much time as you need with each art object.
- Before entering the gallery please take a few quiet moments to develop 1-3 challenges that have personal relevance.
- Use the supplied sheets of white paper and pencil to write down every impression or thought that occurs to you while in the gallery.
- After completing the tour to your own satisfaction, please spend a few more quiet moments to look over all you have written and see if you can make any new or additional connections to your challenge statements.

## Appendix B

Rich(Rich's) Products Questions and Answers. 9/1/00 Buffalo, NY

Q1 Are you familiar with Creativity & Idea generating techniques

1. Somewhat. Have been introduced to a few
2. Yes
3. Am a new student to creativity
4. Yes. Have had experience in those type of workshops both participate and lead - CP:S as well as Rich's
5. Yes
6. Yes
7. Yes
8. Yes
9. Yes
10. Not really - just a bit perhaps
11. No
12. Yes

Q2 How many personal challenges did you take into the gallery

1. 3
2. 3
3. 3
4. 2 - one personal - one more professional but still personal to me
5. 2
6. 2
7. 3
8. 3
9. 2
10. 4
11. 2
12. 1 → 2 I took one challenge that turned into to 2

Q3 Did any ideas occur to you that might help solve your challenges? How many per challenges?

1. 2                      1a 0
2. Yes                      2a 3-4
3. Yes                      3a 2
4. Yes
5. Yes                      5a dozens per challenge, some I havent thought of
6. Yes                      6a 3-4 (more ideas about the ##### or cause of challenge than how to overcome
7. Yes                      7a many ideas overall (need to take time to sit and force some connections identified between the thoughts generated and the challenges

8. Yes 8a 7,3,5
9. No. 9a I think I approached this wrong. I thought we were just supposed to react to art, capture thoughts and the "force fit" would be facilitated later...oops!
10. None
11. Yes 11a 2 ideas that apply to both challenges
12. Yes 12a the 1<sup>st</sup> few pieces I stopped at, I was more focused on my challenge - looked for correlations. As I progressed, without realizing it, focus shifted from challenge to simple appreciation

Q4 Did you have any unrelated inspirations. Describe.

1. There are many more & bigger challenges in the world (not just mine)
2. Yes. It occurred to me that my challenges were all related to each other
3. Amazing the interpretations of each art work
4. Yes. Plenty of inspiration color & what is important to me
5. No. I just kept thinking of Ice Cream
6. No
7. Yes. I need to smile more - Ive lost something/seem to be angry a lot and don't seem be happy or smile as much
8. Yes. Realization how critical - having the time to be creative is to my soul
9. No
10. No
11. Quite a few. Surprised I got any "hits"- thought all would be unrelated
12. Sure...neat reflections on life with each piece of art I spent time with. Inspirations were different for each piece of art

Q5 Did you interact with the facilitator

1. No
2. No
3. Yes. Commented on sound of falls in background
4. No - not really - although got some strange looks from other associates passing by
5. No
6. No
7. Yes. To clarify thoughts
8. No
9. No
10. No
11. No
12. In passing

Q6 What did you discover about you realltion to art?

1. I tend to take it for granted at times.
2. I feel more intimately involved with the art when I could really look at it.
3. We need to take more time to enjoy. I found I can relate more to the art than I ever thought
4. I find it fascinating, awe-inspiring - simple even in its complexity - complex even in its simplicity
5. I like it. I like images I can "find" something in instead of purely abstract
6. I shouldn't sell myself short on being impacted by art or being able to get something out of art - if I take the time to relax & let it come to me as I look at it - I get a lot out of it.
7. I need to take time and smell the roses.....or take time to enjoy the artwork around here!
8. How little I have really looked at the art within this building
9. I am uneducated w/art. I would have enjoyed doing this with a partner. (new steps suggested)
10. It helps to put your words down - (description of a new understanding of a particular piece of art)
11. Need to take the time to study and appreciate
12. An individual's (my) appreciation of each piece is unique to me and different for each piece

## Appendix C

Answers to Survey Questions from excursion with employees from InRoom Plus.

Location: Albright-Knox Art Gallery, Buffalo, April 23, 2001.

Q1: Are you familiar with deliberate creativity and idea generating processes? Explain.

- A. No
- B. No
- C. Have been to a few seminars 5-7 years ago
- D. No
- F. Somewhat
- G. Blank
- H. Blank
- J. No
- K. Yes, I have my bfa in fine art and am constantly generating ideas working on my own art work
- L. Not really
- M. Not really - more like a common topic bu not something that to exercise as much as it should be
- N. No
- P. Yes from my experience with CPSI
- Q. Blank
- R. Deliberate - No; Idea generating processes - somewhat, we all do it whether we realize it or not
- S. Yes. In our all too "conditioned response" society and conform and preform social structure concepts such as creative thinking are a breath of fresh air in all areas
- T. Yes, I try to apply this every day of my life
- U. No

Q2. How many personal challenges did you take into the gallery?

- A. 2
- B. 2
- C. 2
- D. 2
- F. 2
- G. 2
- H. 2
- J. 4
- K. None. But I think I put the images in my memory for later use.
- L. 5 (too many)
- M. I did not go with that perspective; I tried but that is not where the gallery led me.
- N. 1
- P. 2
- Q. None



R. 3  
 S. 1  
 T. All  
 U. 2

Q3. Did any idea occur to you that might help solve your challenge? Yes or No.

A. Y  
 B. Y  
 C. Y  
 D. Y  
 F. Y  
 G. Y  
 H. Y  
 J. Y  
 K. Maybe in the future  
 L. N. except perhaps to put more order back in my life  
 M. N  
 N. Partially. I thought to myself that I could look at any piece of art and say something positive - no negative thoughts  
 P. N. However I would like to review the ideas I generated  
 Q. N  
 R. Y  
 S. N  
 T. Y  
 U. Y

Q4. How many per challenge? (List a number for each challenge)

A. 1 for 1  
 B. 1 for 1  
 C. Blank  
 D. 5  
 F. 1  
 G. 2  
 H. 1  
 J. 3,0,0,2  
 K. Blank  
 L. Blank  
 M. Blank  
 N. Blank  
 P. Blank  
 Q. Blank  
 R. approx. 1 for each  
 S. Blank  
 T. Blank

U. just one

Q5 Did you have any unrelated inspirations? Describe.

A. Y. I had a treat memory of a cottage that I visited often when I was a child. Hope to visit again soon.

B. N

C. N

D. Y. I have never actually stopped and looked at art. I have found a new outlook at so many different aspects of life and art.

F. N

G. N

H. N

J. Y to bring back the creativity in my life

K. N

L. Y The inspiration to create again. I've let that part of me go by the way side and I felt the urge to start using it again.

M. I just had a bunch of words that came to me as I went through - feelings I felt with different pieces

N. You can find beauty in almost anything even if it is something you would never choose (colorwise, etc.) for your own

P. Y My perception of the art pieces was broadened. Each piece of art was viewed from many more perspectives.

Q' <could not understand>

R. The Golub exhibit really opened my eyes to the possibilities of violent acts. The reality of the situation is that these disgusting, controversial things occur, and that's the bottom line. We just have to find solutions and preventative measures especially within schools.

S. N

T. People need to familiar with art and the whole creative process of problem solving by looking at their challenges objectively

U. Found how happy I can be in the environment

Q6. What did you discover about your relation to art?

A. Blank

B. I discovered that art is rather calming to me and it clears my mind

C. try to understand more openly other opinions

D. I have never connected with art but I am very interested in everything that I have experienced today

F. Blank

G. Interesting and open

H. very helpful

J. I was drawn to the paintings that gave me peace of mind. I was able to lose myself in them and enter a new level.

K. Nothing. I have always felt I am inspired by art among other things.

- L. I didn't realize until today how critical I can be. I discovered that I like clean lines and order - not so much the abstract. The problem - I live in the abstract right now - hence the unhappiness.
- M. I have always had an appreciation for it but in the five years I lived here, never went to the gallery.
- N. I should visit the gallery more often. I enjoyed myself. I don't bring enough art into my life.
- P. Blank
- Q. That is very important and created
- R. Sometimes I felt that the works were overly simple, but then I take a step back and realize how compelling the artist's ideas really are.
- S. nothing new
- T. I can sell artwork without buying gesso or canvas stretchers (Golub exhibit)
- U. I've been too restricted

Q7. Could you see yourself repeating this experience on your own?

- A. Y
- B. Definitely
- C. Possibly
- D. Y
- F. Y
- G. Maybe
- H. N
- J. Y
- K. Y
- L. Y I'd like to do it again and spend more time doing it.
- M. Y plan to go and finish the upstairs this weekend
- N. Y I would also tell someone else about it if I knew it could help them in some way
- P. Y
- Q. I fell that I could try to do some of the things on my own
- R. Definitely Hopefully this weekend
- S. Y
- T. Y
- U. I'd love to - I will

Q8. Do you see this experience as a useful way to gain a personal connection to art? Explain.

- A. Y It almost forced me to look at the art and dissect it. Something I would probably not have done
- B. The visit recreated awareness of the gallery. I haven't been there in so many years that I think that I forgot where it was.
- C. It was better than I originally thought it would be. I enjoyed discussing it with others in the gallery

- D. Y
- F. Y I was able to view and interpret the art in a different way
- G. Y
- H. by taking more pride in everyday project
- J. Y but I would need more time to examine the art I was connected to
- K. everytime you look at art either the same piece or different pieces you can take many things from it. ex: pain, anger, happiness (emotions)
- L. Y the personal connection and gains are limitless. Why is it that so many of us have to be forced into being creative in our daily lives? Why is it that life just seems to suck the creative juices right out of you?
- M. not really, more of a way to gain a better perspective on the directions my thoughts and ways of thinking have been in the past few months. Been too closed minded again!!
- N. Y I used to be an art major in high school and I am sorry that I haven't kept it in my life more often.
- P. Y Art reveals aspects of myself, the artist, the artist's world, my world and my relationship to my world.
- Q. Y I see personal connection in learn(ing) difference thing about art in general.
- R. Y This is difficult to put into words...each painting creates and instills a feeling; a lot of connections with the different nationalities, groups (punks, yuppies.) etc
- S. Y more many average people, those who do not have a lot of experience and awareness of contemporary art, this is a useful way to increase their potential connectedness and possible inspiration from art, also pertaining to other aspects of their lives.
- T. Y
- U. I've always looked at the academic - now I'm free to see other things.

## Appendix D

**Theme:**  
**Improving Our Understanding of CPS**  
**Initiative:**  
**Improving programs that nurture creativity-design and evaluate new programs**

**Project Title: The Art Gallery Creativity Excursion as A Bridge to a Personal Orientation to Art.**

**Rationale and Questions:** The purpose of this research is twofold: (1) to demonstrate that a person can generate useful ideas to a problem or challenge by looking at a number of art pieces in a gallery setting and (2) to examine whether or not the act of producing novel and useful ideas through a gallery excursion acts as a bridge to a deeper and more personal relation to art. Questions that will guide this study are:

- Will a creativity excursion in an art gallery yield novel and useful ideas?
- Can novel and useful ideas generated by looking at art help develop a new orientation to the art experience?

**Statement of Significance:** Ever since Alex Osborn demonstrated his first deliberate idea generating tool over fifty years ago researchers and practitioners have sought to better understand the practice of creativity (Osborn, 1992). Today the belief is commonly accepted that creativity and the deliberate act of generating novel and useful ideas is possible for everyone, and it is teachable (Parnes, 1987).

Excursion tools have been used frequently to provide novelty by moving people away from the problem at hand, providing an activity that is different and then connecting thoughts and insights from this activity back to the problem context. W.J.J. Gordon, a contemporary of Osborn and the initial developer of the Synectics™ model, created an entire practice which brought the deliberate production of analogies to bear on developing novel viewpoints to a suggested problem (Gordon, 1961). The Synectics™ excursion along with the Osborn and Parnes Creative Problem Solving process have spurred a wealth of research and generational developments over the last forty years (Prince, 1969; Gordon & Poze, 1971; Gordon & Poze, 1980; Isaksen, Dorval, & Treffinger, 1984; Vehar, Firestien & Miller, 1997a).

Although a variety of stimuli may be used in excursions, the visual mode has been the primary source for connections (Isaksen, Dorval, & Treffinger, 1984; Vehar, Firestien & Miller, 1997b). Geschka and his colleagues tested many known idea generating tools on business people in a wide ranging study in the 1970's. Their findings led them to adapt some tools to build fluency and frequency (Schaude, 1979). One such build is known as Visual Confrontation (originally Visual Synectics) which took Synectics™ verbal analogies and replaced them with pictures (Geschka, 1990). The results indicated that, "The stimulation effect of carefully selected pictures tends to be higher than the stimulation through verbal analogies" (Geschka, 1980, p.59).

Building on these approaches of Synectics™ and Visual Confrontation, this research will explore if one might continue to be stimulated into producing novel and useful ideas by replacing pictures with original art presented in a gallery or museum setting.

In addition I will examine participants reactions after they have successfully produced ideas on a personal challenge to see if they will look at art in a way that has personal meaning and deeper value than before they went on the gallery excursion.

This information can be used in furthering the generational development of the current excursion tools and has the potential to strengthen the relationship between creativity and the field of art gallery-based education.

**Description of the Process:** The excursion will be administered on two separate occasions. All participants, as a group, will be told that they will be touring a collection of art. Each person is free to go wherever he/she wants and to take as much time as he/she needs. Before entering the gallery participants are instructed to spend a few quiet moments to develop 1-3 challenges that have personal relevance. They are given a clipboard with many sheets of white paper and a pencil and instructed to write down every impression or thought that occurs to them while in the gallery. After completing the tour to their own satisfaction they will be instructed to spend a few more quiet moments to look over all they have written and see if they can make any connections to their challenge statements. Each participant will then complete an exit survey that will reflect this project's questions and learning goals. Answers will be analyzed after the first session for the purpose of identifying opportunities to improve the excursion and the questions in the survey before administering it a second time. A quantitative and qualitative model will be developed to analyze the data.

**Learning Goals:** I want to determine how this experience actually works.  
I want to learn how this experience connects with existing CPS practices.  
I want to learn how this experience might fit into gallery-run art education programs.

**Outcomes:** I will write an Executive Summary.  
I will write and submit 10 new annotations of resources used in the research of this thesis to be submitted to CBIR.  
With my advisor I will create a model to analyze the raw and anecdotal data.  
The text of this thesis will include an introduction, a statement of the problem, a literature search, materials and methods, experimental results, discussion, summary and literature cited.

**Timeline:** Submit/Revise Concept Paper 9/00 - 11/00  
Concept Approval 12/00  
Research Related Literature 9/00 - 2/01  
Principal Investigations 9/00 - 1/01  
Develop data analysis plan 12/00  
Analyze Data 1/01 - 2/01  
Write/Revise Thesis 1/01 - 4/01  
Review/Revisions 3/01- 7/01

Executive Summary  
 Text of Thesis  
 Departmental Approval 6/01  
 Dean's Approval 7/01

**Principal Investigators:** Dr. Mary Murdock, Advisor; Tony Billoni.

**Related Literature:**

- Geschka, H. (1980). Methods and organization of idea generation. In S.Gryskiewicz, (Ed.), *Creativity development week II*. Greensboro, NC: Center for Creative Leadership.
- Geschka, H. (1990). Visual confrontation: Ideas through pictures. In M. Oakley, (Ed.), *Design management: a handbook of issues and methods*. Oxford: Basil Blackwell.
- Gordon, W. J. J. (1961). *Synectics the development of creative capacity*. New York: Harper & Row.
- Gordon, W. J. J. & Poze, T. (1971). *The basic course in synectics, (Vol. 1-6)*. Cambridge, MA: Porpoise Books.
- Gordon, W. J. J. & Poze, T. (1980). *The new art of the possible: The basic course in synectics*. Cambridge, MA: Porpoise Books.
- Isaksen, S. G., Dorval, K. B., & Treffinger, D. J. (1994). *Creative approaches to problem solving*. Dubuque: Kendall/Hunt.
- Osborn, A. (1992). How to think up. In S. Parnes, (Ed.), *Sourcebook for creative problem solving*. Buffalo: CEF Press.
- Parnes, S. J. (1987). The creative studies project. In S. Isaksen, (Ed.), *Frontiers of creativity research: beyond the basics*. Buffalo: Bearly Limited.
- Prince, G. M. (1969). *The practice of creativity*. Cambridge, MA: Synectics, Inc.
- Schaude, G.R. (1979). Methods of idea generation. S. Gryskiewicz, (Ed.), *Proceedings of creativity week I, 1978*. Greensboro, NC: Center for Creative Leadership.
- Vehar, J., Firestien, R. & Miller, B. (1997a). *CPS facilitation*. Williamsville, NY: Innovation Systems Group.
- Vehar, J., Firestien, R. & Miller, B. (1997b). *Creativity unbound*. Williamsville, NY: Innovation Systems Group.