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# A Program to Increase Creative Consciousness Through Drawing

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A Program to Increase Creative Consciousness Through Drawing

by

Craig W. Puffer

An Abstract of a Project

in

Creative Studies

Submitted in Partial Fulfillment

of the Requirements

for the Degree of

Master of Science

May 2006

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

## ABSTRACT OF PROJECT

*A Program to Increase Creative Consciousness Through Drawing*

This project assumes that in the development of many children between the ages of five and eleven, a link exists between three observable phenomena: (1) the collapse of their ability to learn on their own; (2) the collapse of their creative abilities; and (3) the collapse of their willingness and ability to draw. Our society holds artists up as exemplars of creativity, and many adults seem to accept the following logical progression: (a) artists are creative; (b) artists can draw; (c) I can't draw; (d) therefore, I'm no artist; and therefore, (e) I'm not very creative. However, as quadriplegics can produce high-level drawings, there is no physical reason why most adults can't learn to draw; the real barrier is perceptual. This project hypothesizes that teaching drawing to adults—specifically to those who believe they can't draw—will generate measurable gains in their creativity consciousness, and may have other benefits as well. This project contains: my proposed drawing course lesson plan; my Seven Principles of Observational Drawing™; my Create, Critique, and Correct™ process; my DrawSmart™ observational drawing process; and a Likert-scale questionnaire I generated, to survey learners' attitudes about drawing, creativity and art. The drawing course proposed will pay substantial attention to overcoming the perceptual barriers of these adults, using techniques such as (a) meta-cognition, (b) visualization and Emotional Intelligence, (c) portfolio review, (d) traditional drawing techniques, and (e) extensive practice will also be incorporated.

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3<sup>rd</sup> May 2006

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Dates of Approval:

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Dr. Mary Murdock, Advisor  
Professor, Creative Studies Department

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Craig W. Puffer  
Student

## DEDICATION

This entire body of work is dedicated to all the great teachers who have ever set my mind on fire. This marks the beginning of my major efforts to pass the spark on, which may be the greatest tribute I can offer them.

However, I have an even larger debt that I can never repay. For all the people who have ever loved me, my eternal thanks. Without all of you, I would not be here. In helping people to tap into their own creativity, I may also begin to spread your love.

In this regard, a special thanks is due to Michelle, for all her love and patience.

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## Chapter I

### BACKGROUND TO THE PROJECT

#### Purpose

Why do we need creativity? We live in a world in which our problems and conflicts are multiplying at an exponential rate, driven by the twin explosions of population and technology. In his 2003 book *Our Final Hour*, Sir Martin Rees, the Royal Society Research Professor at Cambridge University, estimated that given all the problems humanity now faces—from global environmental collapse to nuclear terrorism—our present civilization has only a 50/50 chance of surviving the Twenty-First Century. While Rees' calculation of our odds may be in doubt, there is no doubt that the coming confluence of crises will present enormous challenges and ever swifter changes; we will need to make old things better, and new things possible, and do so very quickly. As such, the human capacity for creativity—to both adapt and innovate—will become ever more critical. We need to develop the creative abilities of as many people as possible to increase the odds in our favor, both as a society and as individuals, and to deal with the number of problems we collectively and separately face.

Yet many people doubt that they are creative, or that they can do anything to increase their creativity; they lack both awareness and confidence in their creativity. As Davis (2004, p. 87) said: "*Creativity consciousness* is a common and important trait among creative people. *In improving our own creativity and teaching it to others, it is the number one trait to develop.*" (Emphasis in the original). The question then becomes: how do we do this? The hypothesis of this project is that teaching drawing to adults—more specifically, to adults who believe they can't draw—will increase their creativity

consciousness and confidence, and may have other positive benefits as well. Moreover, they will learn a potent tool for generating, developing, and communicating ideas. One need look no further than the notebooks of Leonardo da Vinci for an illustration of how powerful drawings can be; new ideas, new inventions and even new sciences made their first-known appearance in his pages (Gelb, 2002). It's both hopeful and possible that an idea first manifested as a drawing may yet save the world, or at least some part of it.

Although I have not yet found an explicit statement in the literature that links the three childhood development phenomena I have chosen to work with, I believe that the link exists. Specifically, and in order of occurrence, the phenomena are: (1) the loss of children's ability to teach themselves how to do things—and subsequently their ability to learn easily—at around age five (Gardner, 1991); (2) the cessation of drawing, which occurs from ages five to ten, with a final drop-off in the fourth grade (Hobbs & Rush, 1997); and (3) the collapse of their creative abilities, especially around age five (Torrance, 1968, 1977, 1979, 1984) with an additional slump in the fourth grade (Runco, 1999; Torrance, 1968). American culture holds artists up as exemplars of creativity (Gardner, 1993). This is reflected in the fact that when asked to describe the traits of creative people, non-artists list “artistic” most frequently; further down that list, non-artists list “draws well” (Runco, 1990; Runco, Johnson & Bear, 1993). This is a cultural bias, not a universal characteristic; although some cultures do have a similar emphasis on art and creativity (Ramos, 2005). Intriguingly, when people who consider themselves artistic are asked to list the traits of creative people, neither “artistic” nor “draws well” appear on their list; this is because the artists know that neither ability is required for—or indicative of—creative ability. However, in the minds of many of the non-artistic public,

which is the vast majority of Americans, the following line of thinking seems to prevail: “Artists are creative; artists can draw; I can’t draw—I’m no artist—therefore, I’m not creative” (Puffer, 2006, p.1).

Children stop drawing for many reasons, but the most common are due to criticism or ridicule, by adults or peers. How often have you overheard someone say something like: “That doesn’t look like a \_\_\_\_\_! You can’t draw!” Unfortunately, many children eventually come to believe this. At the developmental stage that many of them stop drawing, (and the last big fall off is around the fourth grade), two issues are paramount: their peer group’s opinions have enormous influence, and in their art, realism rules (Hobbs & Rush, 1997). Drawing ability substantially freezes at the level where it was stopped, and to a degree, so do aesthetics; when people say they can’t draw, they almost always mean they can’t draw a satisfactorily realistic representation of some object (Edwards, 1999). This project will teach representational drawing to people who believe they can’t, and survey their opinions of their creative abilities before and after doing so; it is believed that the subjects creative awareness and self-confidence will increase, and possibly self-esteem as well. If the expected results occur, it will provide suggestive evidence that a link exists between the three phenomena listed above (Puffer, 2006, p.1). However, given the potential collateral benefits for students of learning to draw, the research concern is secondary.

#### Description

This project originally was intended to be a research thesis, the hypothesis of which was that teaching drawing to people would increase their creative consciousness, especially for those who strongly believed that they couldn’t draw. As such, I’ve been

working on the research for this for a long time, and have been challenged both by retroactively finding sources for things I already knew but couldn't cite, as well as by processing a wealth of information I've subsequently dug up. Given my tendency to be ambitious and embrace complexity, which is a nicer way of saying "my lack of time-frame reality", I had embarked on a plan that would entail doing a Master's project—the design of this drawing program—testing it, and then writing it up as a Master's thesis. In a moment of rationality—thanks to Dr. Murdock!— I realized that such a plan was more suited for a Ph.D., and that if I wanted to complete this project any time soon, that I would have to scale it back. My scaled-down plan was to develop the drawing program, its necessary teaching aids, a Likert-scale questionnaire, and then pilot-test all of that, as well as to produce the conceptual framework that would eventually allow a book to be published.

This has also proved to be unrealistic, as other classwork and outside life intervened, and as I realized that I needed to produce several key background elements first, such as an overarching conceptual framework, (which took far more intellectual wrestling than I anticipated.) Parts of the program that I had developed previously needed to be retooled; my teaching method "Create, Critique and Correct™" had been hampered by the use of anagrams, as I found it difficult to remember more than five data points attached to a word. I have thus tried to simplify everything. My full drawing process—which I call DrawSmart™—takes the learner through three sequential phases: StartSmart™, MarkSmart™, and StopSmart™. The Create, Critique and Correct™ method forms the overall concept, and forms the dynamic within each of the three phases. Although there are twenty-four substeps in DrawSmart™, the learner should be able to

retain the gist of them through remembering the phase-names and applying Create, Critique and Correct™. Similarly, applying Create, Critique and Correct™ to all the things I'd like to teach about drawing yielded my Seven Basic Principles of Observational Drawing™. As this program is specifically geared to the learner with major blocks about drawing, three of the principles deal with the mechanics of drawing, and the other four deal with the emotional and psychological issues that may obstruct them. The Seven Principles I developed also enable me to deliver a substantial amount of effective content in a very stripped down amount of time; they are designed so that if learner can only come to the first two hour session, they will have the bulk of what they need to teach themselves observational drawing.

There are several primary differences between DrawSmart™ and the myriad of other “Learn to Draw” programs, many of which have excellent elements and ideas (e.g.: Audette, 2004; De Reyna, 1996; Garcia, 2003; Hoddinott, 2003). These books and programs will all give you a solid grounding in the technical aspects of drawing from observation. However, if you don't believe you can draw, you may not even pick up the books in the first place, and even if you do, your response will tend be along the lines of: “Wow, this looks like a lot of work...”, which is further de-motivation. Learning to draw requires a sustained effort, but much of the work should feel more like play, not like working through an exercise book. The most effective drawing program currently available—and the one most influential on me— is probably Betty Edward's *Drawing on the Right Side of the Brain* (1999), which combines the meta-cognitive with traditional drawing techniques, but I believe it can be improved upon. Julia Cameron's outstanding

book *The Artist's Way* (2002) is the best for removing blocks, and for reconnecting with the spiritual side of art-making, but it isn't specifically tied to drawing.

What I have tried to do is combine Cameron's and Edward's approaches with my own ideas, and then run the result through David Meier's (2000) *The Accelerated Learning Handbook*, especially his SAVI approach (Somatic, Audio, Visual, Intellectual). I have tied learning to draw from observation with the kinesthetic memory of learning to walk, which might be viewed as Act, Analyze and Adjust, but which I have called Create, Critique and Correct™. While DrawSmart™ has been designed as a seven session program totaling fourteen contact hours, it could be expanded into a semester-length course, or collapsed down into a two hour "Blast" session, which is essentially the first session as a stand-alone. One key difference of my approach is the amount of time spent on the meta-cognitive issues in the first session. In subsequent sessions, I would be talking less, and reiterating the principles from the first session, as well as teaching more of what is considered traditional drawing instruction, but doing so with the SAVI system.

#### Rationale for this Project

I chose this skill substantially because I love art; I have spent most of my life making, looking at, studying and thinking about art. Many of the most blissful moments of my life have occurred while making art and viewing art, and I have achieved a strong understanding of its meanings and processes. I would argue that as a human activity, art making is second only to our taking care of each other; it provides the dream space that allows us to progress. I want to share all this with as many people as I possible; my passion for the subject is leading me to become a full time art teacher. When drawing in public, I have often had people approach me, and sadly say a variation of "You're such

an artist; I can't even draw a straight line." My arguments to the contrary usually fall on deaf ears, so having a proven program might help. I'm also challenged by the fact that Americans often take a dim view of art, and art education is under-funded and undervalued. I chose to teach drawing because it is the most fundamental skill for all the visual arts; it allows you to see into things. I chose to teach representational drawing, because for many people, realism is still the definition of "good" art, and I can use it to build bridges to less understood forms. The process used in learning to draw from observation can also be applied to many other areas of the learner's life and can have numerous other collateral benefits and impacts. I have a very high level of passion for this project, as I sense that it may well be my life's work (Puffer, 2006, p.1-2).

#### What Has This Project Added to Myself and Others

This project has added a lot to my life, as it has provided both a direction and a framework for my studies at Buffalo State; this includes both my Art Education certification and my M.S. in Creative Studies. As I mentioned above, my sense is that this may be my life's work, or at the very least, the next big thing I'm supposed to do. In a sense, my whole life has been a preparation for this, and that kind of collision with destiny is both exhilarating and terrifying. It's exhilarating because of the energy surge I enjoy when I start working on it in earnest. Many of my favorite phenomena start kicking in: I withdraw and become focused; I lose track of space and time and physical needs; I forget about everything else, and ideas jump out, do back-flips and triple toe-loops, and start connecting in intriguing ways. This is all highly enjoyable for me, but it makes me poor company, and it's hard to maintain any sense of discipline beyond the immediate

obsession gripping me. (I was experiencing “Flow” long before I knew the name Czikszentmihalyi gave it in 1990).

Discipline has never been a strong suit with me, at least not when I’m working on my own projects; annoyingly enough, I am a fairly focused and disciplined employee, leader and manager when I’m being paid by someone else. Left to my own devices, I drift and am easily distracted, and can be absorbed by a relatively minor detail, and lose track of the overall effort. This has happened numerous times during this project, and I’ve been battling my obsession with perfecting parts, especially during this write-up. Polishing prose or ideation can be beneficial, but the time consumed may render other parts of the setting unsatisfactory. I’m not sure how to effectively counter this problem, but some of the side journeys have contributed to the overall quality of the project, and some of the side pathways were very productive.

Beyond my inconstant discipline, there was a further dark-side to this project. There is usually a dark-side somewhere in a creative project, which is to be expected, given the holistic nature of creativity; even the Garden of Eden had its serpent. For me the darkness took several manifestations. The first refers to terrifying part of realizing that I was on the right life-track. As a person who has generally underachieved—which is a nicer and less judgmental than saying that I have betrayed my talents—I had put a heavy esteem value on my unused potential. Putting myself in a position where my true level of ability might be assessed means stripping away the adolescent security blanket of untapped potential, and like Linus, I’ve had that blanket for a long time. I have a pattern of trying to balance my fear of failure with my fear of success; both, in my mind, carry the penalty of costing you the people you love, either because they will leave you, or



because you will leave them. In a seemingly no-win situation, doing nothing is often the course of choice.

Now that I've entered into a project whose success may change my life, I find myself teetering on my personal Occam's Razor. I have been remarkably successful at self-sabotaging myself; I have missed numerous crucial deadlines, and allowed my work to be mired in fuzzy efforts that occupied time but generated little concrete result. When all else has failed, I have procrastinated furiously. Finally, I have lost much time and energy to depression, which may be both the handmaiden and Harpie of my creative self. Depression has always been a problem for me, and I'm rediscovering the depth of its defensive mechanisms. This project's pending deadline is helping me move through the inertia of depression, but I'm faced now with the need for a massive effort, and seem to have already woven my standard internal escape net in case of failure: "It would have been much better if I had managed to spend more time on it." However, instead of allowing myself to make a negative self-fulfilling prophecy, I will make a positive one: "I will finish this project on time, and it will be good enough to carry me on to the next step, which is to start testing all these ideas and materials, so that I can further improve them".

As far as what this project has added to the lives of other people, given it's unfinished state, I would have to say not much, yet. I have added stress to some peoples' lives, but I hope eventually to counter-balance that by removing some of the stress from many other lives. This project may have many positive impacts on both its participants and the people they come in contact with. As stated above, drawing allows you to see into things; it can increase both your observational and interpretive abilities, and literally change the way you view the world. Part of the power of the arts is that they encourage

you to simultaneously use all three of the domains from Bloom's Taxonomy, the Cognitive, the Affective, and the Psychomotor. The process of drawing from observation, its steps, phases, lessons and evaluations can be profitably applied to other areas of the students' lives. Drawing can be used as a form of meditation, and can reduce stress and increase patience and inner peace. Drawing can be an extremely powerful tool for creativity and problem solving, as our brains devote enormous resources to the processing of images; the root of the word "imagination" reflects this. I also believe that learning to work with images—to both draw and imagine them—is as important and as fundamental to our intellectual development as learning to use words and numbers. Drawings by quadriplegics and other severely disabled people show that literally anyone can physically draw at a high level; the main barrier to some people is their belief that they can't draw. One powerful side effect of learning to draw is that it can help people develop their emotional intelligence, and change their inner dialogues to more productive modes. Perhaps the most important reason to teach drawing, especially to people who believe they can't draw, is that once they learn to do so, they have reason to examine other areas of their lives for self-made barriers and stumbling blocks. In other words, they may ask themselves "What else did I think I couldn't do, that I must now re-evaluate?" (Puffer, 2006).

## Chapter II

### PERTINENT LITERATURE

#### Literature Review

##### *Drawing and Creativity*

Creativity is an enormously complex enterprise, so much so that at first glance, it may seem like pure chaos. However, just as the study of chaos in mathematics and physics has yielded major gains in our understanding of the universe (Briggs & Peat, 1989) and creativity (Zausner, 1998), so too has the study of creativity greatly increased our understanding of both ourselves and our organizations (Sternberg, 1999). When you make a drawing, you impose order on a chaotic myriad of choices, yet the media is flexible enough to allow all those possibilities to be called back and combined at will. Drawing is thus an enormously potent way of both knowing the world and changing it, and we have been using it to do so for tens of thousands of years (Hoptman, 2002).

Drawing is one of the most human of tools, and perhaps is the most human of all: other animals use language, and can even understand vocabulary, but only humans draw. Anthropologist Ellen Dissanayake (1992) argues that art making is not only what makes us human, but that it has helped us survive and adapt as a species. Humans drew long before they invented writing, so it's not surprising that many of the world's earliest alphabets were picture based, such as Egyptian, Incan, Aztec, Chinese and Japanese. We use drawings when words are too cumbersome; symbols, like the ones for restrooms, enable people the world over to meet a key need efficiently, without a dictionary or a translator. A well-known aphorism says that "A picture is worth a thousand words," and this is usually true, but if so then a symbol may be worth a million, or even a billion;

think of how many words can be written about a Swastika, a Cross, or a Star of David. Drawing is fundamental to our ability to make and understand symbols; a representational drawing is at its heart a symbol, and a symbol equally retains its drawing DNA (Shepherd & Shepherd, 2002).

Our modern, high tech society is more dependent on drawings ever, although those drawings are increasingly performed on and by machines. We are surrounded by the results of drawing. Every building around you, nearly everything that required more than two people to make, every road, product, package, sign, symbol, microchip and circuit sprang from a drawing, which itself was probably the offspring of another drawing, or even a series of them (Hoptman, 2002). In a sense, drawing is the hand-maiden of Western creativity. With adults, it is more often used as part of the process in another creative work than as a creative act in itself; the notable exceptions to this are children's drawings, which are creative ends unto themselves, explorations and explications of the world as they see it (Malchiodi, 1998). As another illustration of drawing as an exploratory tool, think about how critical both the concept and actuality of a map is to understanding where we are; even when we don't physically draw them, we make them in our minds. Drawing is thus a core cognitive skill, and should be taught as such (Hoptman, 2002).

However, most children move from drawing frequently and loving it, at age five, to drawing rarely, and being embarrassed about it, at age eleven. At the age when most children stop drawing, "good art" is realistic and representational, and the more "real" it looks, the better. Those children who believe they can't draw realistically stop drawing, or do so only under duress (Hobbs & Rush, 1997). Although I have not yet found an

explicit statement in the literature that links three childhood development phenomena, I believe that these phenomena are linked, and that they may share a similar cause. Specifically, and in order of occurrence, the phenomena are: (1) the loss of children's ability to teach themselves how to do things—and subsequently their ability to learn easily—at around age five (Gardner, 1991); (2) the cessation of drawing, which occurs from ages five to ten, with a final drop-off in the fourth grade (Hobbs & Rush, 1997); and (3) the collapse of their creative abilities, especially around age five (Torrance, 1968, 1977, 1979, 1984) with an additional slump in the fourth grade (Runco, 1999; Torrance, 1968). Gardner (1991) attributes the kindergarten learning collapse to the rigid, one-right-way, everything-else-is wrong pedagogy, which is force-fit onto children who had previously been wildly successful using their natural learning styles. Hobbs and Rush (1997) argue that the decline of drawing is due to children entering the rule-following developmental phase, which emphasizes realistic representation. Like Gardner, Torrance (1977) linked the drop in creativity to the kindergarteners' sudden immersion in conformity and regimentation. Not surprisingly, vast amounts of research into adult organizations have conclusively shown the creativity-dampening power of regimented, conformist, rule-bound environments (Amabile, 1995; Amabile & Grysiewicz, 1988; Bates and Khasawneh, 2005; Davis, 2004; Ekvall, 1983, 1996; Sternberg, 1999).

We live in a culture where artists are often held up as exemplars of creativity (Gardner, 1993). Leonardo da Vinci, Michelangelo, Artemisia Gentilisci, Camille Claudell, Jackson Pollock and Andy Warhol, to name just a few, have all been subjects of recent popular culture books, articles and movies. This is reflected in the fact that when asked to describe the traits of creative people, non-artists list “artistic” most frequently;

further down that list, non-artists list “draws well” (Davis, 2004). This is a cultural bias, not a universal characteristic; although some cultures do have a similar emphasis on art and creativity (Ramos, 2005). Intriguingly, when people who consider themselves artistic are asked to list the traits of creative people, neither “artistic” nor “draws well” appear on their list; this is because the artists know that neither ability is required for—or indicative of —creative ability (Davis, 2004).

Many non-artists seem to infer the following logical progression: (a) artists are creative; (b) artists can draw; (c) I can’t draw—(d) I’m no artist— and therefore, (e) I’m not very creative; this will be particularly pronounced among children who have no other creative outlet. In truth, all five of these terms are flawed: (a) all artists are NOT creative (Neher, 1999); (b) many artists can’t draw observationally either, as it is no longer a professional requirement (Neher, 1999); (c) anyone can learn to draw observationally; (advanced drawings by quadriplegics will be shown in class) (Edwards, 1999); (d) undiscovered or undeveloped ability may look like having no ability (Cameron, 2002); and (e) creative potential exists in almost everyone (Houtz, 2003). A principle tenet of psychoanalysis is that childhood events may have a profound effect on the rest of a person’s life. Therefore, adults who stopped drawing in childhood will tend to still believe that they can’t draw, and can’t learn how to draw; their rare drawings, frozen at the ability level they stopped at, serve as “proof” of their complete inability to draw (Edwards, 1999). What they think of as “good” art may also be frozen at that stage. This set of negative beliefs sets the stage for a potential burst of personal growth. Teaching drawing to adults who are convinced they can’t draw will not only equip them with a new set of life skills and an effective learning process, it will also put them in a position where

they have to ask themselves: “If I believed it was impossible for me to learn to draw, and then I learned how to draw, what else in my life that I consider impossible do I now need to re-examine?”

## Creativity

### *General Purpose Creativity vs. Artistic Creativity*

Creativity remains problematic, as far as both its definition and its processes are concerned; it is perhaps the most complex of all human activities to think of something no one has thought of before—or to think of it differently—and then to *act* on that thought. Moreover, creativity doesn’t happen in a vacuum; instead, as Rhodes (1961) pointed out, it relies on an intricate set of relationships between the creative person, the creative product, the creative process, and the creative press, which is the environment surrounding, pressuring, and interacting with them all—Rhodes called this model the four P’s of Creativity. Given the diversity of elements and people involved, not to mention the diversity of possible creative products and their subsequent effects, it should be of little surprise that there is no universally accepted definition of creativity. The study of creativity is emerging as a discipline, and thus is not without its critics; most of these critics are the various researchers inside the field, as is to be expected when ideas are being tested and explored. Some of the critics of creativity research are external to the field, and the lack of comprehensive internal agreement is usually used as a point of evidence in their diatribes, as is the question of whether it’s possible or even desirable to study creativity. (Madden, 2004; Diffey, 2004). Moreover, these authors tend to take issue with the conflation of general or mercantile-purposed creativity with artistic creativity; they do have a point, as artistic creativity has dimensions of emotion,

spirituality and meaning that are often not pursued in other forms of creativity. However, such dimensions are not impossible in those alternate forms; for instance, there are many product designers whose work has both decidedly spiritual and emotional content, e.g.: Buckminster Fuller, Raymond Loewy, and Phillippe Starck (Heskett, 1980). Finally, as an artist aware of the deep problems endemic in the Western art world, I consider it a major mistake to disdain the muse-like role art can play in developing other forms of creativity (Billoni, 2002, Davis, 2004); it's partially for this reason that it's hypothesized that teaching drawing will enhance the learners' creativity consciousness.

### *Growing Consensus in Creativity Research*

The more extreme views against creativity research are comparatively rare. The field of creativity research began in earnest in 1950, with Guilford's address to the American Psychological Association on the need for precisely that. In the past six decades, the study of creativity has expanded to include hundreds of researchers working in dozens of countries around the world; while all of them would probably admit to the difficulties inherent in studying creativity, none of them would say it was impossible. The desirability of studying creativity is likewise driven by diverse sources and interests, from businesses and societies trying to survive and prosper in an era of fierce global competition, to cognitive scientists trying to understand one of the brain's most complex functions, to educators seeking to increase the creativity of school children. Significantly, consensus is being achieved on a growing number of issues and aspects of creativity. For instance, most of the definitions of creativity generated in the past twenty years seem to embrace the concepts of both novelty and usefulness. (Amabile, 1997; Davis, 2004; James, Clark & Cropanzano, 1999). Similarly, Kirton's (1976) model—which



delineates creativity into two fundamental styles, Adaptor and Innovator, and places individuals in a continuum between them—has been widely accepted. Adaptors tend to work within an existing paradigm, and try to *do things better*, while Innovators work outside the existing paradigm, and aim to *do things differently*; a deft combination of both is needed in order for an organization to thrive in the long term.

Additional models have successfully been developed to explore other aspects of the creative style of individuals and organizations. These include FourSight, developed by Puccio (2004), which delineates personal style preference for the four phases of creativity, and KEYS, developed by Amabile (1995), which profiles various management practices as environmental factors that influence creativity in organizations. Other measures, not specifically designed for creativity research, have been employed as well, such as the Myers-Briggs Type Indicator (MBTI), and the Adjective Check List (ACL); they have validated many of the findings of the specific creativity measures, as well as allowing data analysis of aspects of personality on creativity style.

There are other areas of growing consensus in creativity research; one is the critical impact the psychological climate of an environment—which includes the behaviors, attitudes and feelings of the people in it—on the level of creativity found in organizations; the psychological climate alone can determine if an organization grows and flourishes or stagnates and dies. (Amabile, 1995 ; Amabile & Gryskiewisc, 1988; Ekvall, 1983, 1996; and Rickards & Bessant, 1980). Not surprisingly, the number one factor in the psychological climate is the nature of the organization's leadership (Amabile, 1995, 2004; Amabile & Gryskiewisc, 1988; Amabile, Schatzel, Moneta & Kramer, 2004; Ekvall, 1996), which can account for up to 70 percent of the climate.

Leadership includes not only top management, but also supervisory and experienced line personnel (Amabile, Schatzel, Moneta & Kramer, 2004; Ekvall, 1996). Another large body of research has focused on the differences of various cultures' perceptions and manifestations of creativity (e.g.: Bates & Khasawneh, 2005; Mari'i & Karayanni, 1982; Rodee, 2005); to the degree that generalizations across cultural lines are hazardous, although measures and observations developed in one culture can provide a highly useful framework for modifying or developing them in other cultures. Hence, while the current research proposal may not work on people from cultures not derived from the Western European/ North American model, it may suggest a means of increasing another culture's creativity consciousness through a creative process from that culture.

#### *Creativity as Part of Psychology*

Since Guilford's landmark 1950 paper, creativity research has been a small but growing area of psychological investigation. Various psychological movements have tried to explain the mechanisms of creativity, and are achieving growing success in doing so. Maslow (1968) viewed creativity as a means of achieving Self-Actualization, which is the healthy integration of the self and its environment, in which positive potentials are pursued and reached. It's also a means of achieving meaning or purpose in life, through creating works and encounters, which Frankl (1992) correlated to the will to live. Creativity, art, and drawing are also among the means of achieving "Flow", a state of peak experience which collapses the sense of time and awareness of outside issues. (Czikszenmihalyi, 1990). In a later work, Czikszenmihalyi (1996) explored a concept he called Big "C" Creativity vs. little "c" creativity, which was essentially creativity that changes a domain, or even the world, vs. creativity that only impacts the lives of the

creator and the people around him or her. Although Csikszentmihalyi's domain specific arguments have been used to question whether creativity can be taught, the vast majority of creativity scholars, both classic (de Bono, 1995; Gordon, 1961; Guilford, 1950; Osborn, 1953; Torrance, 1962) and contemporary (Davis, 2004; Houtz, 2003, Sternberg, 1999) argue that it can be taught and increased. This is an important point, because, without it, teaching drawing would probably have no impact on a person's sense of creativity consciousness. Edwards (1986) has published a book on the impact drawing can have on creativity, but more research in this area is needed.

#### Expanded CBIR Abstracts

Puffer, C. W. (2006). *A program to increase creative consciousness through drawing*. Unpublished masters thesis, Buffalo State College, Buffalo, NY.

This project assumes that in the development of many children between the ages of five and eleven, a link exists between three observable phenomena: (1) the collapse of their ability to learn on their own; (2) the collapse of their creative abilities; and (3) the collapse of their willingness and ability to draw. Our society holds artists up as exemplars of creativity, and many adults seem to accept the following logical progression: (a) artists are creative; (b) artists can draw; (c) I can't draw; (d) therefore, I'm no artist; and therefore, (e) I'm not very creative. This project hypothesizes that teaching drawing to adults—specifically to those who believe they can't draw—will generate measurable gains in their creativity consciousness, and may have other benefits as well. The drawing program designed for this project pays substantial attention to overcoming the perceptual barriers of these adults, using techniques such as meta-cognition, visualization and Emotional Intelligence, and portfolio review, combined with traditional drawing methods, and extensive practice.

Controlled Vocabulary for CBIR:

Age, Child, Adult, Arts, Art, Artist, Fine arts, Self-Improvement, Whole Brain, Holistic, Creativity, Cognitive, Development, Education, Drawing, Imagery, , Self-Actualization, Play, Thinking Skills.

#### Selected Bibliography

Briggs, J. & Peat, F. D., (1989). *Turbulent mirror: An illustrated guide to chaos theory and the science of wholeness*. New York: Harper and Row.

Cameron, J. (2002). *The artist's way*. New York: Penguin.

Csikszentmihalyi, M. (1990). *Flow: the psychology of optimal experience*. New York: Harper & Row.

Davis, G. (2004). *Creativity is forever*. 5<sup>th</sup> Ed. Dubuque, Iowa: Kendall/Hunt.

Dissanayake, E. (1992). *Homo aestheticus: where art comes from and why*. Glencoe, IL: Free Press.

Edwards, B. (1999). *The new drawing on the right side of the brain: a course in enhancing creativity and artistic confidence*. New York: Tarcher/ Putnam. and resources. Hadley,

Frankl, V. (1992). *Man's search for meaning: an introduction to logotherapy* (I. Lasch, Trans., part one)(4<sup>th</sup> ed.). Boston: Beacon Books.

Gardner, H. (1991). *The Unschooled mind: How children think and how schools should teach*. New York: Basic Books.

Gardner, H. (1993). *Creating minds: an anatomy of creativity seen through the lives of freud, einstein, picasso, stravinsky, eliot, graham and ghandi*. New York: Basic Books.

Gelb, M. (2004). *How to think like leonardo da vinci*. New York: Delta Trade Publications.

Hobbs, J. A., & Rush, J. C. (1997). *Teaching Children Art*. Upper Saddle River, NJ: Prentice Hall.

Hoptman, L. (2002). *Drawing now: Eight Propositions*. New York: Museum of Modern Art.

- Houtz, J. C. (Ed.) (2003). *The educational psychology of creativity*. Cresskill, NJ: Hampton Press.
- Neher, R. (1999). *Blindfolding the muse: The plight of painting in the age of conceptual art*. New York: Prenom Press.
- Malchiodi, C.A. (1998). *Understanding children's drawings*. New York: Guilford Press.
- Meier, D. (2000). *The accelerated learning handbook: A creative guide to designing and delivering faster, more effective training programs*. New York: McGraw-Hill.
- Puffer, C. W. (2006). The impact of learning to draw on creative awareness. Unpublished paper, Buffalo State College, Buffalo, NY.
- Rees, M. (2003). *Our final hour: A scientist's warning: how terror, error, and environmental disaster threaten humankind's future in this century -- on earth and beyond*. New York: Basic Books.
- Shepherd, R., & Shepherd R. (2002). *1000 symbols: What shapes mean in art and myth*. London: Thames and Hudson.
- Torrance, E. P. (1968). A longitudinal exploration of the 4<sup>th</sup> grade slump in creativity. *Gifted Child Quarterly*, 12, 195-197.
- Torrance, E. P. (1977). *Creativity in the classroom*. Washington, DC: National Education Association.
- Torrance, E. P. (1979). *The search for satori and creativity*. Buffalo, NY: Creative Education Foundation.

## Chapter III

### PROCESS PLAN

#### Introduction

It will come as no surprise to anyone who knows me outside of a professional setting, that the biggest hurdle I faced with this project was managing my time effectively. Despite a well-defined timeline in my Concept Paper, despite access to a person with excellent time management and time estimation skills, who was also willing to occasionally prod me, and despite my best intentions, I still allowed time to escape my grasp, and worked on certain things far longer than I should have. The biggest problem was in allowing myself to ramble in my research and reading. Were this to be a book, (and hopefully someday soon it will lead to one), the extra reading and the fuzzy searches could have been very valuable, and some of them were. However, I spent way too much time on them, and tended to read more from a source than I needed for this project. I also used them as an excuse to not dive into other aspects of this project that were more pressing. On the other hand, the concept paper timeline is full of overly optimistic time expectations, and an unrealistic workload. In the end, though, when I added up the total number of hours I spent on this, even without whole categories of tasks that I didn't have time for, like module testing, I still spent more time on this project than I had expected, and I consider the time well spent.

## Timeline

<b>Month</b>	<b>Week Number</b>	<b>Activity</b>	<b>Number of hours required</b>
January	4	Draft of concept paper	6
January	4	Pick up Human Subjects criteria and forms from BSC Research Foundation; and read	1.5
January	4	Begin contacting people I need to consult with	1
February	1	Final version of concept paper	2
February	1	Continue literature search, copy and read.	4
February	1	Begin Curriculum outline	1
February	1	Begin draft of Questionnaire	1
February	2	Formal meetings with various faculty to discuss curriculum; make revisions	1
February	2	Continue literature search, copy and read.	6
February	2	Start lesson/unit plan	1
February	3	Start planning teacher aides and products	1
February	3	Continue literature search, copy and read.	8
February	4	Continue literature search, copy and read.	5
March	1	Continue literature search, copy and read.	2
March	1	Work on basic principles	1
March	2	Continue planning lesson/unit plan	2
March	2	Continue literature search, copy and read.	4
March	3	Continue literature search, copy and read.	6
March	3	Work on Draft of project write-up	3
March	4	Work on basic principles	4
March	4	Continue to read literature	4
April	1	Work on final version of project write-up	6
April	1	Work on Questionnaire, seek feedback	3.5
April	1	Work on DrawSmart program	5.5
April	1	Continue to read literature	5
April	2	Work on final version of project write-up	15
April	2	Continue to read literature	3
April	3	Final version of project write-up	17
April	3	Revise Unit/Lesson plan	4
April	4	Prepare presentation for class	2
April	4	Revisions and additions to final (Final version)	17
April	4	Prepare original sets of all signatory pages	.25
April	4	Copy, bind, submit 4 final hardbound projects to instructor	4
April	4	Submit Microsoft Word CD version of complete project	.25
April	4	Submit title of project to Department Secretary	.25
		<b>Total Hours</b>	<b>147.25</b>

## Chapter IV

### OUTCOMES

#### Introduction

The translation of my basic idea into a workable plan proved far more difficult than I had originally thought. I kept changing my emphasis, kept looking for mnemonics, and kept trying to decide on basic principles. After much sorting and revising, I'm happy with the current state of products and ideas that I've expressed; I believe they're clear enough for an alpha test, which is where I wanted to be on my revised timetable.

As an example of one of my semantic trampolines, I've had I had a lot of difficulty defining what to call what I'm trying to teach...most laymen would just call it drawing, but I have a enough experience in this domain to know that there are many kinds, purposes and processes of drawing. The term I used originally, "representational drawing", has a number of problems, not least of which is that technically a symbol is a representational drawing, as is a cartoon. "Realistic drawing" could work, except that the art world's definition of reality has radically shifted in the last hundred years, as has the definition of art. "Object —or objective—drawing" could work, but it can also cause confusion, as you can try to make an objective rendering of an idea. I finally settled on observational drawing, as this type of drawing is based on observation, with an objective result containing many of the same characteristics as photographs.

The literature review—and the ongoing effort to justify the need for this project—has consumed a disproportionate amount of the time I'd allotted for CRS 690. However, I feel it is one of the products of this project, albeit one I hadn't originally planned on. As I worked on the structure of my overall argument, and blocked out the areas I needed to



develop, I found myself in a situation not unlike trying to assemble a 5000 piece jigsaw puzzle: each major piece that allowed me to connect a pre-assembled section to the whole gave me a burst of energy to continue. (Have I mentioned that my creativity tends to express itself in obsessive-compulsive ways?) I became addicted to the process, and I moved through a huge amount of written material; I have had enormous trouble moving from that part of the project into the arena of my program's design. It really bothers me even now, that the literature review still has numerous holes to be filled reached, and has yet to reach a state of feeling reasonably complete. This may be due to my overly verbal nature, or to the difficulty I have stilling my internal Voice of Judgment, especially when I'm working on something written.

## Products

### *Product One: My Create, Critique and Correct™ Process*

**To Create:** to respond to a sensorial, intellectual or emotional stimulus by making something in the world outside your own head. Usually, creativity implies making something that is novel and useful, but this underplays the basic human need to make things, even if they may have only tiny, incremental differences with similar objects. Generally, to get to the point where you are making something that is novel and useful, you have to spend a lot of time making things that are repetitive and derivative, in order to acquire the necessary skills. The making issue is key in the sense that for this process to work, you first have to *act*. For observational drawing, this means looking at something carefully, and trying to make a representational analog of it on a two-dimensional surface. The act may be as simple as drawing a dot or a line.

**To Critique:** to offer a constructive, objective criticism that has the goal of improving something, without destroying or freezing it. I chose this word, as it is less familiar than the more negatively used “criticize”. I wanted to create a separation between constructive and destructive criticism. The word is also appropriate, as critiques are used in art classes for purposes of improvement. The next phase of the process is to *analyze* what you have done, to see if it achieved what you intended it to do in the analog process, and then to suggest how it may be made more effective. Critiques are objective, and avoid personal attacks; they are the essence of what I call Non-judgmental Judgment. For observational drawing, this means looking at what you just did, and comparing it to the original, to see if it “looks right”. If it doesn’t, suggestions for improvement are made.

**To Correct:** to take the information gleaned from your analysis, and then *adjust* accordingly the results of your previous act. If the previous act is deemed either “correct” or “close enough”, a new act may be initiated, which starts the process all over. For observational drawing, this process should happen repeatedly, and with incredible rapidity. Because of the process’s objectivity, the corrections should be made without emotional interference, and with a minimum of internal wordplay. I chose the phrase Create, Critique, and Correct® over Act, Analyze and Adjust for two reasons: the words pertain more to the worlds of art and creativity, and aesthetically: “The Three C’s” sounds better than “The Three A’s”.

*Product Two: My Seven Basic Principles of Observational Drawing™*

**1. Observational Drawing is about seeing the relationships** in the original (size, shape, position, angle, alignment, lightest, darkest, etc.) and then matching them in your drawing. Learn to really see what you're looking at!

**2. Always work from the “biggest to the smallest”:** from the biggest relationship, proportion, shape, line, etc., to the smallest relationship, proportion, shape, line, etc. (Don't draw the nose before you draw the head!)

**3. Use the Create, Critique, and Correct™ process** repeatedly to get yourself where you want to go. Observational Drawing should be like walking, a natural process you no longer need to think about.

**4. Pursue process over product, and seek improvement, not perfection!** Embrace your mistakes as learning opportunities! Perfection is not possible, but continuous improvement is! Trying to be perfect will prevent you from drawing.

**5. Tame your inner critics, and train them to be positive and helpful!** Limit your inner Voice of Judgment to constructive comments and answers to questions you ask, such as “Is this part in proportion compared to the rest?”

**6. Learn from everyone, but compare yourself only to yourself!** This makes everyone—including masters like Michelangelo, Van Gogh, Matisse and O'Keefe—your peers, teachers, and colleagues. You should only judge your drawings by what you are learning, and how you're improving.

**7. May the Flow be with you! Relax, breathe, focus, and enjoy!** Close out any thoughts that don't bear on seeing the object or making the drawing, which include negative internal criticism. Approaching drawing this way is a form of Zen One Mind meditation, and can bring many of the same joys and health benefits.

*Product Three: My Three-Phase “DrawSmart™” Observational Drawing Process*

**Phase one: StartSmart™!**

In the first two minutes

**Focus/Center**

1. Relax, release all issues not involved with drawing, and breathe calmly.
2. Just observe the original for at least the space of two calm, deep breaths.

**Decide Three Things**

3. Decide what to draw from what you can see; it can be one thing or many...Decide what to include and exclude. (Exclusion and Alteration will be covered in more advanced lessons).

4. Decide if those things included, looked at together, are wider or taller overall.
5. Orient your paper that way

**Get the first measurement right**

**(Start applying the Create, Critique and Correct™ Process to all steps after this.)**

6. Visually measure the smaller overall dimension with your pencil, and then describe the larger overall dimension in terms of it; e.g.: the bottle is four times taller than it is wide;

**Compose**

7. Compose the drawing. Based on the overall width vs. height proportion, decide how you want the drawing to be placed on paper; avoid a small drawing in the center. Make light marks on your paper that reflect those overall dimensions, and composition. You can then lightly sketch a box which the drawing of the bottle can fit into.

## **Phase Two: MarkSmart™!**

### **Sketch *lightly* at first**

8. Sketch *lightly* until all proportions, positions, and shapes have been worked out.

### **Establish Proportions and Positions: Work from “Biggest to Smallest”**

9. Always work from the “biggest to the smallest”; from the biggest relationship, proportion, shape, line, etc., to the smallest relationship, proportion, shape, line, etc.

(Don’t draw the nose before you draw the head).

10. Compare the parts to the whole. Find a distinct element of what you want to draw, visually measure it, and use that measurement to determine the proportion and position of other elements. For instance, the label on the wine bottle is slightly taller than the bottle is wide, and the top of the label is halfway up the bottle’s height.

### **Look for Alignments, and Make Guidelines**

11. Look for vertical, horizontal and diagonal alignments. Lightly Draw in guidelines. If an object is symmetrical, draw a centerline for it before drawing its shape or details.

### **Refine the Shapes**

12. When the proportions and positions look right, start on the shapes, again working from largest to smallest.

### **Refine the Lines**

13. When the shapes look right, start refining the lines. Look for the subtle changes of direction, for overlaps and origins.

14. Now address the Line Quality: vary the thickness, darkness, distinctness and smoothness of the lines, to make the drawing look both more real and interesting.

**Begin on the tones and shadows.**

15. When the lines look right, start on the tones and shading.

16. Look for the shapes defined by a single tone, and lightly sketch them in. Then fill in the shape with that tone.

17. Look for where the lightest and darkest areas are, and scale the other tones between them.

18. Blend tones together where needed. Continue to refine the tonal relationships.

**Phase Three: StopSmart™!****Decide to Stop**

19. If you have a time limit set to complete a drawing, consider it done when you reach that time.

20. If you have not set a time limit, the drawing is done when you decide it is at a good place to stop working on it; this decision will get easier with practice. Balance the need to push yourself further with the awareness that you may overwork a drawing, which can reduce its effectiveness.

**Label It**

21. Immediately after stopping, write the amount of time you spent on the drawing in a corner, along with the date. Sign it if you wish.

**Review It**

22. Take five minutes: Either on the back or in the margins of the drawing, write down your answers to the following questions:

- What do you like about the drawing?
- What went well or easily?

- What did you see—either in the drawing or in the original—that you had never seen before?
- What did you learn to draw?
- What did you draw better than you had before?
- What aspects of the drawing do you want to improve on? IMPORTANT

NOTE: Phrase these critiques as questions, e.g.: “How might I make smoother shadows?” or “How might I draw fabric better?”

23. If you can think of positive, possible solutions for these improvement questions, write them down also. Be aware of cutting remarks from your inner critic...but don't write them down.

24. At some point in the future, look at the drawing again, and review the notes. Write down any additional ideas you may have about, along with the review date.



*Product Four: My BlastDrawing™ Technique*

BlastDrawing™ is a multi-purpose technique that serves as both a necessary counter-balance to—and reinforcement of—the DrawSmart™ process; each tends to correct the other’s weaknesses and potential bad habits. In a BlastDrawing™, the learner makes a separate, preliminary, one-minute drawing of everything they plan to have in their more careful and time-consuming DrawSmart™ rendering; this should be done on the same size paper as the DrawSmart™ version. BlastDrawing is useful for many things:

- It serves as a warm-up and loosening exercise;
- Its one-minute nature renders photo-realism impossible; thus
- It minimizes the internal verbalization that can so easily descend into destructive criticism;
- It breaks through inertia and “starting” anxiety;
- It shows how fast drawing decisions can be made, and how rapidly Create, Critique and Correct™ can be applied;
- It reinforces the idea of developing the drawing consistently across the whole page before enhancing areas and adding details;
- It emphasizes the importance of working from the “biggest to the smallest”;
- It highlights spontaneity and serendipity; and thus
- It may be more inventive and expressive; and thus
- It may well have more “drawing magic” and more value as a work of art than the more time-intensive version.

The name BlastDrawing™ is intended to reflect its ability to blast away mental blocks and rigidity, and also that it should be a “blast” to do! Try smiling while doing it!

*Product Five: My Three Great Things About Bad Drawings™*

As mentioned previously, many people have a deep-rooted dislike —or even fear—of drawing; this is often attributable to the ridicule, shame, or pain that they felt when an early effort was not received well by others. It is difficult for these people to draw again, as they view it as almost dangerously risky. This product is directly targeted at countering those early feelings, and their contemporary manifestations.

**Three Great Things About Bad Drawings™**

**1) You will not die from a bad drawing, and neither will anyone else.**

Regardless of how big and dangerous this emotional block seems, the truth is that you're physically safe. You render yourself psychologically safe by drawing for improvement, not perfection, and by limiting your emotional attachment to the drawing. You are separate from your drawings, and making a bad drawing does not in any way reflect on anything but that one drawing; it doesn't have anything to do with whether you're a good person, or deserving of love, or anything else but your desire to improve your drawing ability. If someone is being really negative in their criticism, remember that it is probably about them and not about you, and has nothing to do with your worth as a person. Listen for any ideas that may be useful, and encourage them to make their own drawings. If you wish, you may also offer them a separate sheet of paper, and ask them to show you briefly; this may either shut them up, or if they can draw, it may give you a potentially valuable lesson from another perspective.

**2) You can learn more from a bad drawing than from a good one.** It's often very hard to say why we think a drawing is good, or why we like it; this kind of critique gets easier with practice, though. On the other hand, usually what we don't like about a

drawing stands out like the proverbial sore thumb; it's easy for us to see, and thus easier for us to correct in our next drawing. However, it's important to avoid negative categorical statements like "This drawing stinks," or "I can't draw!" as they will only reinforce your blocks. Instead, always start your review with what you like about the drawing, and what works well. At the very least, you should be pleased that you made it, as a drawing in your hand is worth more than two in your head, (unless you're *visualizing* making the drawing in your head, but we'll explore that later). Express the things you don't like about the drawing as questions, rather than as statements. Instead of saying: "the composition is weak", ask "How might you make the composition stronger?" Statements tend to shut down discussion and thinking; questions open them up. Finding answers and applying them will push you to make another drawing.

3) **If you are unwilling to make a bad drawing, you will never be able to make a good one.** This is the hidden price of perfectionism; it will make you miserable enough to stop drawing, but it will never make you perfect. You have to be willing to make mistakes, and then to make the most out of them; this is one of the underpinnings of this entire project. Ironically, in aiming only to continuously improve but not be perfect, you will eventually reach a point that looks perfect to other people.

*Product Six: My Seven-Lesson Unit Plan*

**Learning to Draw, for People Who Wish They Could™**

**Introduction:** Although this is a multi-lesson accelerated learning program, it is designed to scaffold off the first lesson. In essence, I kept asking myself: “If I never got to see this learner again, what are the most important things I’d want her or him to walk away with? What information would be most helpful for them to continue learning to draw on their own?” *Learning to Draw, for People Who Wish They Could™* is planned for seven class sessions of two hours of contact time each, with fourteen hours total. It can be expanded into a semester long drawing course, or presented as a weekend workshop, ideally as two eight-hour days. (Why eight? Because with no homework time, you need more drawing time built in.) The current program is intended for adult continuing education; modifications would be needed for younger students, or for those in formal education settings. As the reader will notice, no time has been allotted for the usual and necessary discussions of attendance, behavior, grading, etc. needed for a formal education setting. The emphasis is instead placed on moving learners through certain sets of concepts.

The first lesson is also designed to be a stand-alone seminar, and a brief overview of the most important concepts involved. As a stand-alone, the drawing-a-tree-from-memory exercise would have to be modified or removed, as its purpose is to establish a baseline for later portfolio comparison. The first lesson doesn’t even cover my three-phase DrawSmart™ process, (which appears in lesson two). Instead, the first lesson focuses on: overcoming perceptual blocks, learning the Create, Critique and Correct™ process, learning my Seven Principles of Observational Drawing™, and as much

drawing and discussion time as we can fit in. The subsequent six class sessions spend more time reviewing and expanding upon those basic lessons, more time reviewing homework and in-class drawings, and ideally, more time drawing, and less and less time listening to the instructor talking.

Another key principle of this program's approach is that people are encouraged to learn to draw by drawing things that they like. The rote exercises employed in many drawing courses can be painfully dull, even if you are already passionate about drawing. You can learn as much about the basics of observational drawing by using flowers, cars, or people. For more advanced lessons, such as perspective or anatomy, certain categories of subject matter are better: for instance, buildings are better for learning perspective, but won't teach you much about human anatomy. Hopefully, allowing students to choose a subject matter they love will bring some of that positive energy into their drawings, cause the effort of learning to draw to seem more like play, and make the advanced lessons more creative. They will also be able to learn from their classmates more easily, as the competition of sameness will be reduced.

**Lesson One:** Introduction to Learning to Draw, for People Who Wish They Could

*First 60 minutes.*

1. Distribute and collect Likert-scale questionnaire (10 minutes).
2. Distribute Preliminary Materials: #2 pencil with eraser, 6 sheets of 8.5 x 11 printer paper, 12 x 16 manila envelope for portfolio (2 minutes).
3. Draw a tree, from memory, with as much detail as possible (5 minutes). (This drawing establishes a base-line for their drawing from memory skills, and their drawing abilities generally).
4. Draw a self-portrait, (if enough mirrors are available). (8 minutes). This drawing establishes a baseline for their drawing from observation skills.
5. Debrief: (time depends on number of participants—aim for fifteen minutes).
  - How was it for you?
  - When did you last draw something out of your memory or imagination?
  - How long has it been since you tried to draw something you were looking at?
  - Was drawing from memory easier, or drawing from observation?
  - What did you notice happening?
  - What did you feel or think while making these drawings?
  - How do you think this might apply to this course? To your outside life?

(Have students date the drawings, and write the time spent on each. They can sign any drawing they're pleased with. Then have them put their drawings into their portfolio envelopes.)

6. Briefly talk about how this course will mostly be about drawing from observation, but that elements of imagination will also be used. Define drawing from observation. (3 minutes).

7. Kinetic exercise: Talk about children and drawing, how many of them stop drawing, and the development phases they go through. Then talk about children's amazing learning abilities; they taught themselves how to talk, and how to walk. Then ask the students to stand up, move about the room, and for the first time in decades, to think about how they actually walk. From standing still, you shift your balance and weight to one foot, and push off it, while you're lifting up the other one and swinging it forward. You rapidly reach a point where you're unstable and falling forward. Your nervous system makes a lightning analysis, and figures out where to put your forward moving foot to prevent you from falling on your face. Your brain is also deciding if you're moving in the direction you want to, and making fast corrections accordingly. As you move forward, your weight shifts increasingly to the forward planted foot, and off the foot you originally pushed off of. As the leg of your forward foot approaches the vertical, all of your weight is focused upon it, and simultaneously the other foot is lifting and swinging forward, past the planted foot, which you are now pushing off of. Again, your nervous system makes a lightning analysis, figures out where to put your forward moving foot, and makes a vast number of adjustments to keep you moving in the right direction. *While you are walking, you are essentially in a controlled fall*, and if anything interrupts this process you may stumble. You have done this so often that you can do it effortlessly and without any conscious thought. You are rapidly following a repeating sequence where you act, quickly analyze that action, and make adjustments before acting,

analyzing and adjusting again. Our goal is to make drawing from observation as easy and unconscious as walking.

One key point is the amount of thought required; at first, it will take more thought and seem clumsy, but with practice it will rapidly grow easier. Remember how children learn to walk. They keep practicing and refining their ability; they enjoy their increasing skill level, and if they fall down, they get up and run off again. They never say: “I fell down; I can’t walk; I’m never going to walk again.” (seven minutes).

8. Introduce the Create, Critique, and Correct™ process, the heart and soul of this course (5 minutes). Talk about inner blocks briefly and say we’ll begin to address these after the break.

9. Show drawings and paintings by quadriplegics. Talk about how there is no physical reason why most people cannot learn to draw. The primary blocks to drawing are perceptual. Talk about “The Three Great Things About Bad Drawings™”. Talk about the idea of, “In the time you have, do the best you can”. (5 minutes).

*Second 60 minutes.*

**9 minute break—including participants choosing an 8 x 10 photograph**

10. Have the class draw their photograph, as completely as possible. (5 min.)

11. Visualization: Talk about their internal Voice of Judgment (VOJ). In their imaginations, have the students put a face on it; now have them replace that face with their own, to take ownership of it. Now have them notice that their VOJ has no body attached to it...Have them say to the VOJ, “If you don’t start speaking to me in a nicer way, I’ll put a dirty sock in your mouth.” Since the VOJ has no hands, it can’t remove



the sock, and so silence reigns for a few minutes. Since the VOJ is now your own, and somewhat in your control, you can open negotiations with it. (5 min.)

12. Talk about Non-Judgmental Judgment , and how it forms the Critique phase of the Create, Critique and Correct™. The point is that when the VOJ is restricted to Non-Judgmental Judgment, it can answer questions, like “Is this object in proportion to the rest?”, or make constructive suggestions for improvement, as long as they don’t veer into harsh, judgmental statements like: “You can’t draw! Who are you trying to kid?”.

Remind the VOJ that you have a lot of socks (3 min.)

13. Introduce the Seven Basic Principles of Observational Drawing™. Handout summary sheets. (10 min.)

14. Introduce the concept of Blast Drawing™. Have the class redraw their entire photograph in one minute, including as much detail as possible. (3 min.)

15. Have the class invert the photograph (face-up and upside down to where they are sitting), and then draw it again. Their drawing should be oriented the same way; they should not try to mentally flip the image. Tell them to just look at the shapes of the objects, and push away the words/names of the objects. (5 min.)

16. Have the class put the time spent, the date, and sequence on their drawings. Encourage them to make notes on their drawings as the class debriefs. (1 min.)

17. Debrief the class on what the experience of the three drawings was like for them. (12 min.)

- How was it for you?
- Which drawing was easiest?
- Which drawing do you like the best?

- What did you notice happening?
- What did you feel or think while making these drawings?
- Which drawing was your Voice of Judgment most useful on?

Talk about the “practice effect;” basically, the more you practice you have, the better you get, especially if you use the DrawSmart™ process

18. Have the students put all their drawings into their portfolios, newest on top, and hand the portfolios to you. (1min.)

19. Homework: (3 min.)

Assignment A: Three drawings, two of which are BlastDrawings™.

- First, find something small that they like, but that doesn't move.
- Make a BlastDrawing™ of it.
- Review the Seven Principles, and then make a drawing of it. Spend at least 20 minutes on it, but not more than an hour.
- Make another BlastDrawing™ of it.
- Write notes on the back of the drawings, listing what they like about each one, and what they want to improve.
- Encourage them to do more of these three drawing sets, if possible. This will depend on the amount of time between classes, and the outside life-issues the learners are dealing with.

20. Distribute Materials: Sketchbook 11 x 14, art pencils, sharpener, gum eraser, Pink Pearl eraser. (5 mins.)

## **Lesson Two: DrawSmart™ introduced**

*First 60 minutes.*

1. Ask the class to hang up their homework. Allow people to opt out of showing the whole class, but they must agree to show you later. (5 min.)

2. Establish rules of class critique. Remind them to keep it positive. Limit the time for each person to speak, unless the class agrees to let them go on. (2 min.)

3. Have them talk about what they like about their own drawings, what they like about other peoples' drawings, and what they would like to use in their own work. (13 min.)

4. Briefly Review the Three C's, (Create, Critique and Correct™) and the Seven Principles™. (5 min.)

5. Introduce the DrawSmart™ process.

Discuss it from the broadest terms, to the most specific.

The three phases, all of which emphasize the role of thinking in this process:

—StartSmart™

—MarkSmart™

—StopSmart™

Discuss how the Three C's and the Seven Principles then apply to those phases, and basically generate the sub-phases and steps. (15 minutes).

6. Teach them how to use their pencils as visual measuring tools, as well as edges for finding alignments, and “shape-tracers”. Provide handouts. (15 minutes).

7. Have them practice finding overall length and width proportions on several objects, including on you. (10 minutes).

*Second 60 minutes.*

**9 minute break**

8. Walk the students through the steps, using simple household objects as models.

(40 min.)

9. Debrief the experience; encourage the students to make notes on their drawings. (8 mins.)

10. Insert homework and class drawings into portfolios. (1 min.)

11. Homework (3 min.)

Assignment A: Three drawings, two of which are BlastDrawings™.

- First, find something that they like that doesn't move.
- Make a BlastDrawing™ of it.
- Review DrawSmart™, and then use it to make an accurately proportioned drawing. Spend at least 20 minutes on it, but not more than an hour.
- Make another BlastDrawing™ of it.
- Write notes on the back of the drawings, listing what they like about each one, and what they want to improve. Encourage them to do more of these three drawing sets.

Assignment B: Also have them bring an object that they like to the next class.

### **Lesson Three: DrawSmart™ Reviewed / Exploring Composition.**

*First 60 minutes.*

1. Ask the class to hang up their homework. Allow people to opt out of showing the whole class, but they must agree to show you later. (5 min.)

2. Have them talk about what they like about their own drawings, what they like about other peoples' drawings, and what they would like to use in their own work. (15 min.)

3. Briefly Review the Three C's, (Create, Critique and Correct™), the Seven Principles™, and the Three Great things About Bad Drawings. (5 min.)

4. Review the DrawSmart™ process; carry it through to the end if the previous session didn't. (5 min.)

5. Have them do a blast drawing of an object they brought in. (2 min.)

6. Have them do a DrawSmart™ drawing of the same object. Guide them through the phases and steps. (28 min.)

*Second 60 minutes.*

#### **9 minute break**

7. Teach them how to better compose their drawings. Provide handouts. (15 minutes).

8. Have them practice making 3-minute compositional sketches of different views of their objects, using the first phase of DrawSmart™. (9 minutes).

9. Have them make one of their compositional sketches into a twelve-minute DrawSmart drawing. (12 minutes).

10. Show them how they can check their composition by “cropping it” with two L-shaped pieces of cardboard. (10 minutes.)

11. Have them make notes on their drawings. (3 min.)

12. Insert homework and class drawings into portfolios. (1 min.)

13. Homework (2 min.)

Assignment A: Six drawings, two of which are BlastDrawings™.

- First, find at least three objects that they like, arrange them, and make three 3-minute sketches of it..
- Make a BlastDrawing™ of the best one.
- Review DrawSmart™, and then use it to make an accurately proportioned, well composed drawing of the three objects. Spend at least 20 minutes on it, but not more than an hour.
- Make another BlastDrawing™ of the group.
- Write notes on the back of the drawings, listing what they like about each one, and what they want to improve. Encourage them to do more of these three drawing sets.

Assignment B: bring in three different objects for next week.

Assignment C: Make two large cardboard ‘L’s, (handout provided) and check your compositions. Make additional notes as needed.

## **Lesson Four: Exploring Line Quality.**

### *First 60 minutes.*

1. Ask the class to hang up their homework. Allow people to opt out of showing the whole class, but they must agree to show you later. (5 min.)
2. Have them talk about what they like about their own drawings, what they like about other peoples' drawings, and what they would like to use in their own work. (15 min.)
3. Briefly Review the Three C's, (Create, Critique and Correct™), the Seven Principles™, the Three Great things About Bad Drawings, and DrawSmart™ (3 min.)
4. Have them practice making 3-minute compositional sketches of different views of their objects, using the first phase of DrawSmart™. (6 min.)
5. Have them do a BlastDrawing™ of the best one. (1 min.)
7. Have them do a DrawSmart™ drawing of the same objects. Guide them through the phases and steps, but try to have everyone get at least to the phase where the proportions, positions and shapes are right. (15 min.)
8. Teach them how to improve the line quality in their drawings. Discuss weight, refinement, and emotional energy. Provide handouts, and have them play with lines. (15 minutes).

### *Second 60 minutes.*

#### **9 minute break**

9. Teach them how line weight and solidity can also express light and shadow. Provide handouts, and have them practice on one of their three-minute compositional sketches. (15 min.)

10. Have them return to their incomplete DrawSmart™ drawing from step seven, and improve its line quality. (15 min.)

11. Have them do another BlastDrawing™ of their three objects, but this time thinking about the line quality. (1 min.)

12. Debrief them on what they saw and experienced with the line quality exercises, and have them make notes on their drawings. (10 min.)

13. Exercise: split the class in to pairs. Have one person describe how they are feeling in one word, and have the other make a BlastDrawing™ portrait of them using lines that express that word. Then have them do it again, switching roles. (5 min.)

14. Debrief them on their BlastDrawings™. Which one did they like best, and why? Which one was most successful at expressing an emotional state, even if it wasn't the word they were aiming for? (5 min.)

15. Have them make notes on their drawings, and insert their homework and class drawings into their portfolios. (1 min.)

11. Homework (2 min.)

Assignment A: Six drawings, two of which are BlastDrawings™.

- First, find a living plant or tree, and at least one other object, and make three 3-minute sketches of it..
- Make a BlastDrawing™ of the best one.
- Review DrawSmart™, and then use it to make an accurately proportioned, well composed, expressive drawing of the three objects; its lines should also suggest light and shadow. Spend at least 20 minutes on it, but not more than an hour.



- Make another BlastDrawing™ of the group.
- Write notes on the back of the drawings, listing what they like about each one, and what they want to improve. Encourage them to do more of these three drawing sets.

Assignment B: take a Xerox of a Master Drawing by Picasso or Tiepolo, and make a copy of it using the inverted technique from the first week and DrawSmart™.

Assignment C: Bring in a plant and another object for next week.

**Lesson Five: Exploring Light, Shadow and Tone.**

*First 60 minutes.*

1. Ask the class to hang up their homework. Allow people to opt out of showing the whole class, but they must agree to show you later. (5 min.)

2. Have them talk about what they like about their own drawings, what they like about other peoples' drawings, and what they would like to use in their own work. (15 min.)

3. Briefly Review the Three C's, (Create, Critique and Correct™), the Seven Principles™, the Three Great things About Bad Drawings, and DrawSmart™ (3 min.)

4. Have them do a BlastDrawing™ of the plant and the other object they brought in. (2 min.)

5. Have them make two 3-minute compositional sketches of different views of their plant and object, using the first phase of DrawSmart™. (6 min.)

6. Have them do a DrawSmart™ drawing of the same objects. Guide them through the phases and steps, but try to have everyone get at least to the phase where the proportions, positions, shapes, and lines are right. (14 min.)

7. Teach them how to improve the tonal quality in their drawings. Discuss highlights, mid-tones, shadows, directions and reflections. Provide handouts, and have them play with tones. (15 minutes).

*Second 60 minutes.*

**9 minute break**

8. Teach them crosshatching and how to look for planes. Have them practice on one of their 3-minute compositional sketches. (15 min.)

9. Have them return to their incomplete DrawSmart™ drawing from step six, and improve its tonal quality. (21 min.)

10. Have them do another BlastDrawing™ of their objects, but this time thinking about the tonal quality too. (1 min.)

11. Debrief them on what they saw and experienced with the tonal quality exercises, and have them make notes on their drawings. (9 min.)

12. Have insert their homework and class drawings into their portfolios. 1 min.)

13. Homework (4 min.)

Assignment A: Six drawings, two of which are BlastDrawings™.

- First, find a tree, and place two other objects near it to suggest your family tree, and make three 3-minute sketches showing all of them.
- Make a BlastDrawing™ of the best one.
- Review DrawSmart™, and then use it to make an accurately proportioned, well composed, expressive and tonally correct drawing of the three objects; with a clear sense of light and shadow. Spend at least one hour on it, but not more than two hours.
- Make another BlastDrawing™ of the group.
- Write notes on the back of the drawings, listing what they like about each one, and what they want to improve.

Assignment B: take a Xerox of a Master Drawing by Rubens or Michelangelo, and make a copy of it using the inverted technique and DrawSmart™.

Assignment C: bring in a cardboard box and a yardstick to class next week.

## **Lesson Six: A Fast Lesson in Perspective.**

*First 60 minutes.*

1. Ask the class to hang up their homework. Allow people to opt out of showing the whole class, but they must agree to show you later. (5 min.)
2. Have them talk about what they like about their own drawings, what they like about other peoples' drawings, and what they would like to use in their own work. (15 min.)
3. Briefly Review the Three C's, (Create, Critique and Correct™), the Seven Principles™, the Three Great things About Bad Drawings, and DrawSmart™ (3 min.)
4. Briefly discuss overlapping and aerial perspective. Provide handouts. (5 min.)
5. Ask how much knowledge they have of one and two-point perspective, and adjust times accordingly. Quickly review one-point perspective and the horizon line, and gauge from there. Provide handouts. (15 min.)
6. Have each person do a BlastDrawing™ of the inside of their box in one-point perspective, without using their rulers. (2 min.)
7. Have each person do a DrawSmart™ drawing of the inside of their box in one-point perspective, using their rulers. (10 min.)
8. While they're drawing, check for accuracy, and decide if they're ready to move on to two-point perspective.
9. If they are, start explaining two-point perspective; provide handouts. (5 min.)

*Second 60 minutes.*

**9 minute break**

10. Continue explaining two-point perspective. (10 min.)

11. Have each person do a BlastDrawing™ of their box in two-point perspective, without using their rulers. (1 min.)

12. Break the class into teams of three, and have them combine their cardboard boxes into an arrangement, so that the boxes are perpendicular and parallel to each other, and so that they can see the inside of at least two of the boxes. (5 min.)

13. Have them do a BlastDrawing™ of the boxes in two-point perspective, without using their rulers. (1 min.)

14. Have each person do a DrawSmart™ drawing of the boxes in two-point perspective, using their rulers. Have them start blocking in the tones. (24 min.)

15. Debrief them on what they saw and experienced with the perspective exercises. (5 min.)

16. Have them make notes on their drawings, and insert their homework and class drawings into their portfolios. (3 min.)

17. Homework (2 min.)

Assignment A: Six drawings, two of which are BlastDrawings™.

- First, choose an interior view of their home, which can serve as a metaphorical self-portrait and make three 3-minute sketches showing different views.
- Make a BlastDrawing™ of the best one.
- Review DrawSmart™, and the rules of perspective, and then use them to make an accurately proportioned, well composed, expressive, tonally correct drawing, with a clear sense of light and shadow and accurate two

point perspective. Spend at least one hour on it, but not more than three hours.

- Make another BlastDrawing™ of it.
- Write notes on the back of the drawings, listing what they like about each one, and what they want to improve.

Assignment B: take a Xerox of a Master Drawing by Matisse or Michelangelo, and make a copy of it using the inverted technique and DrawSmart™.

## **Lesson Seven: A Fast Lesson in Facial Proportions**

*First 60 minutes.*

1. Ask the class to hang up their homework. Allow people to opt out of showing the whole class, but they must agree to show you later. (5 min.)

2. Have them talk about what they like about their own drawings, what they like about other peoples' drawings, and what they would like to use in their own work. (15 min.)

3. Briefly Review the Three C's, (Create, Critique and Correct™), the Seven Principles™, the Three Great things About Bad Drawings, and DrawSmart™ (1 min.)

5. Talk about the proportions of human faces. Provide handouts. (20 min.)

6. Break the group into pairs; have them alternate doing BlastDrawing™ portraits of each other. (5 min.)

5. Show how different facial features can be rendered. Provide handouts. (14 min.)

*Second 60 minutes, plus 20:*

### **9 minute break**

6. Break the group into pairs; have them alternate doing BlastDrawing™ portraits of each other. (5 min.)

7. Give each person a mirror, and have them BlastDraw™ a self-portrait. (3 min.)

8. Have each person do a self-portrait using DrawSmart™ and the mirror. (23 min.)

9. Have them take out from their portfolio the self-portrait drawing from their first session. Debrief them on the differences and improvements (20 min.)

10. Have them fill out another copy of the Likert-scale questionnaire issued on the first day. (10 minutes.)

11. Have them fill out a class evaluation survey. (10 min.)

Thank them for their participation and growth!



*Product Seven: My Likert-scale Survey (See Appendix B for the survey form).*

This questionnaire serves several purposes. It is designed to serve as a pre- and post-treatment measure of the self-reported attitudes of learners in the program, in terms of what they think about drawing, creativity and art. It is specifically intended to test the components of a statement I feel holds true for many people who believe they can't draw: (a) Artists are creative, (b) artists can draw; (c) I can't draw — (d) I'm no artist — (e) I'm not very creative. It will hopefully show me if that hypothesis is true, and also if the learners' creative consciousness has increased after the DrawSmart program.

## Chapter V

### KEY LEARNINGS

#### Introduction

As a time manager, I'm really bad...especially at open-ended tasks. On the other hand, if you want someone who can remember to pull out the laundry from the machines while being fuzzily absorbed by something else, I'm your man. Fortunately, I have full time access to a really accomplished time-manager, Michelle Robert, and for her assistance and patience I'm very grateful. The net is that this project write-up will probably be done on time, or very close to it, which is an accomplishment for me.

#### Content

##### *Things That Worked:*

Even after all this time and effort, I still love this area of subject matter, and the way so many other topics branch off and into it. The research and literature review were worth it from a content standpoint, as was my overly long cogitation of a number of key ideas and principles, and they're *still* subject to further revision. I am happy with where things are for now, and feel that the program is something I can act upon and credibly pilot test. I like the overall umbrella of ideas that I've developed for this project, and I got to read a number of excellent books and articles; I also feel I've done a good job translating their content into my program, and yet have emerged with something unique. All the extra research will eventually bear fruit if I ever publish any of this in a scholarly journal, which I hope to do at some point; the extra material will also come in handy when I expand this project into a book.

*Things to Change or Do Differently:*

On the other hand, for the purposes of this project, I had too much material, and even now have not synthesized it all. My poor ability at sorting the priorities of information gathering, as opposed to what I'm interested in at the moment, have caused me a lot more stress in this write up period than I care to have. As I mentioned in the Process/Timeline section, I also grossly under-estimated the time needed to make teacher products and educational aids, and they will also have to be continued after the official time-period of this project ends. Starting this write-up sooner would have helped, even if in an outline form, because it may have indicated which research paths did not need to be pursued at this time. Yet the big issue is not so much that I wouldn't have included all this content in my final drawing program, but that I shouldn't have included it in this project plan, as things attached to my current deadline; as usual, I had unrealistic expectations of how much I could do.

### Process

*Things That Worked:*

While it caused maddeningly late revisions, the perversity of my willingness to change things at the eleventh hour really did make the content better. Although my creative product arc didn't flow in a smooth bell-curve of outcomes, I am happy with where I've gotten. I tend to incubate on things for a long time, often until the last possible moment. Again, since I like many of the results, and since my creativity does function better with the adrenalin shot from a pending deadline, I'm not as upset as I probably should be with my process.

*Things to Change or Do Differently:*

On the other hand, I've massively ratcheted up my stress level, and late typing means another photo-finish. I miss other opportunities when I work this way, and I strain relationships that are important to me. I also physically overextend myself, necessitating serious recovery time before I dash off on my next pending deadline. I also have to wonder how the work would have turned out if I could have made myself more productive sooner, in the final-product sense. I have been working this way for decades, and always swear I will do better next time. An odd thought in my self-castigation: as imperfect as this major project finish is, it is better than many of my previous ones. This time I'm finishing near the deadline, I have remained comparatively well-rested and less-stressed, and I like what I've done and what I'm working on. Previous efforts have occasionally yielded none of those results, but have engendered incredible stress, incompletes, and deep depressions. Maybe I am getting better about my worst habits, which is a happy thought to close on.

### Conclusion

One of the most satisfying moments of this project so far was adding my name to the Select Bibliography and full Reference lists. I have always loved reading, and have a lot of books, (over thirty boxes of books on my last move, and even more now). My full reference list has many of the most influential books I've read over the past few years, and some of my favorite authors. So it was a major event to be able to include my name among them, even if it was for an unpublished concept paper. It was a first for me, but with hope, luck and diligence, it will not be the last time. While I am dissatisfied with

many parts of this project, in the end I'm happy I've gotten it this far, and I believe I have some really good stuff here. I want to take it to the next level.

I have multiple goals for this project. I want to be able to use it to teach drawing to an expanded audience. I want it to help me in landing a job teaching art in a high school, and I want it to be a cornerstone of my content. I also want it to eventually become a book in its own right, and possibly a series of ancillary products. Could it be a *Chicken Soup for the Drawing Soul*? Perhaps. While I don't need an empire on Amazon.com to make all this effort worthwhile, it does make for a pleasant thought while I'm doing my carpal-tunnel prevention exercises. Although I periodically come up with ideas that I think could succeed, I really feel that this is one I should pursue to become what and who I can become. Self-actualization in a Master's project is a huge bonus, but that possibility is probably why the International Center for Studies in Creativity allows this kind of work. For that, I will always be grateful.

## Chapter VI

## REFERENCES

- Ackoff, R. L. and Vergara, E. (1981). Creativity in problem solving and planning: A review. *European Journal of Operational Research*. 7 (1) 1-13.
- Amabile, T. M. (1995). *KEYS: assessing the climate for creativity*. Greensboro, NC: Center for Creative Leadership.
- Amabile, T. M. (1997). Entrepreneurial creativity through motivational synergy. *Journal of Creative Behavior*. 31 (1) 18-26.
- Amabile, T. M. & Gryskiewisc, S. S. (1988). Creative human resource in the R&D laboratory: How environment and personality affect creativity. In R. L. Kuhn (Ed.) *Handbook of creative and innovative managers*. (pp.501-524). New York: McGraw-Hill.
- Amabile, T. M. Schatzel, E. A., Moneta, G. B., & Kramer, S. J. (2004). Leader behaviors and the work environment for creativity: Perceived leader support. *Leadership Quarterly*. 15 (1) 5-32.
- Audette, A. H. (2004). *100 creative drawing ideas: Outstanding teachers share the exercises they use to bring out the best in artists—from beginning students to seasoned professionals*. Boston: Shambhala.
- Bates, R. & Khasawneh, S. (2005) Organizational learning culture, learning transfer climate and perceived innovation in Jordanian organizations. *International Journal of Training & Development*, 9 (2) 96-109.
- Billoni, A. G. (2002). *The art gallery excursion as a bridge to idea generation and a heightened aesthetic experience*. Unpublished masters thesis, Buffalo State College, Buffalo, NY.
- Briggs, J. & Peat, F. D., (1989). *Turbulent mirror: An illustrated guide to chaos theory and the science of wholeness*. New York: Harper and Row.
- Cameron, J. (2002). *The artist's way*. New York: Penguin.
- Cameron, J. (2003). *Walking in this world: the practical art of creativity*. New York: Penguin Group.
- Csikszentmihalyi, M. (1996). *Creativity: flow and the psychology of discovery and invention*. New York: Harper Collins.
- Csikszentmihalyi, M. (1990). *Flow: the psychology of optimal experience*. New York:

Harper & Row.

- Davis, G. (2004). *Creativity is forever*. 5<sup>th</sup> Ed. Dubuque, Iowa: Kendall/Hunt.
- De Bono, E. (1995). *Serious Creativity*. New York: Harper Collins.
- De Reyna, R. (1996). *How to draw what you see*. New York: Watson-Guptill.
- Diffey, T. J. (2004). On steering clear of creativity. *Journal of Visual Art Practice*. 3 (2) 91-102.
- Dissanayake, E. (1992). *Homo aestheticus: where art comes from and why*. Glencoe, IL: Free Press.
- Edwards, B. (1986). *Drawing on the artist within: An inspirational and practical guide to increasing your creative powers*. New York: Fireside.
- Edwards, B. (1999). *The new drawing on the right side of the brain: a course in enhancing creativity and artistic confidence*. New York: Tarcher/ Putnam.
- Ekvall, G. (1983). *Climate, structure and innovativeness of organizations: A theoretical framework and experiment*. Stockholm, Sweden: The Swedish Council for Management and Work Life Issues.
- Ekvall, G. (1996). Organizational climate for creativity and innovation. In G..J. Puccio & M.C. Murdock (Eds.) *Creativity assessment: Readings and resources*. Hadley, MA: The Creative Education Foundation Press.
- Frankl, V. (1992). *Man's search for meaning: an introduction to logotherapy* (I. Lasch, Trans., part one)(4<sup>th</sup> ed.). Boston: Beacon Books.
- Garcia, C. W. (2003). *Drawing for the absolute and utter beginner*. New York: Watson-Guptill.
- Gardner, H. (1991). *The Unschooled mind: How children think and how schools should teach*. New York: Basic Books.
- Gardner, H. (1993). *Creating minds: an anatomy of creativity seen through the lives of freud, einstein, picasso, stravinsky, eliot, graham and ghandi*. New York: Basic Books.
- Gelb, M. (2004). *How to think like leonardo da vinci*. New York: Delta Trade Publications.
- Gordon, W. (1961). *Synectics*. New York: Harper.

- Guilford, J. P. (1950). Creativity. *American Psychologist*. 5 444-454.
- Heskett, J. (1980). *Industrial Design*. New York: Oxford University Press.
- Hobbs, J. A., & Rush, J. C. (1997). *Teaching Children Art*. Upper Saddle River, NJ: Prentice Hall.
- Hoddinott, B. (2003). *Drawing for dummies: A reference for the rest of us*. New York: Wiley Publishing.
- Hoptman, L. (2002). *Drawing now: Eight Propositions*. New York: Museum of Modern Art.
- Houtz, J. C. (Ed.) (2003). *The educational psychology of creativity*. Cresskill, NJ: Hampton Press.
- James, K., Clark, K., & Cropanzano, R. (1999). Positive and negative creativity in groups, institutions and organizations: A model and theoretical extension. *Creativity Research Journal*, 12 (3) 211-226.
- Kirton, M. J. (1976). Adaptors and innovators: A description and measure. *Journal of Applied Psychology*. 61 622-629.
- Madden, C. (2004). Creativity and arts policy. *The Journal of Arts Management, Law, and Society*. 34 (2) 133-139.
- Neher, R. (1999). *Blindfolding the muse: The plight of painting in the age of conceptual art*. New York: Prenom Press.
- Malchiodi, C.A. (1998). *Understanding Children's Drawings*. New York: Guilford Press.
- Maslow, A. H. (1968). *Toward a psychology of being*, 2<sup>nd</sup> ed. Princeton, NJ: Van Nostrand.
- Meier, D. (2000). *The accelerated learning handbook: A creative guide to designing and delivering faster, more effective training programs*. New York: McGraw-Hill.
- Osborn, A. (1953). *Applied Imagination*. New York: Scribner's.
- Puccio, G. J.; Wheeler, R. A.; & Cassandro, V. J. (2004). Reactions to creative problem solving training: Does cognitive style make a difference? *Journal of Creative Behavior*. 38 (3) 192-216.
- Puffer, C. W. (2006). The impact of learning to draw on creative awareness. Unpublished paper, Buffalo State College, Buffalo, NY.



- Ramos, S. J. (2005). *Cross-cultural studies of implicit theories of creativity : a comparative analysis between the United States and the main ethnic groups in Singapore : a thesis in Creative Studies*. Unpublished masters thesis, Buffalo State College, Buffalo, NY.
- Rees, M. (2003). *Our final hour: A scientist's warning: how terror, error, and environmental disaster threaten humankind's future in this century -- on earth and beyond*. New York: Basic Books.
- Rhodes, M. (1961). An analysis of creativity. *Phi Delta Kappan*, 42, 305-310.
- Rickards, T. & Bessant, J. (1980). The creativity audit: Introduction of a new research measure during programs for facilitating organizational change. *R&D Management*, 10 67-75.
- Rodee, M. (2005). Weaving generations together: Evolving creativity in the Maya of Chiapas. *Journal of Anthropological Research*, 61 (2) 230-1.
- Runco, M. A. (1990). Implicit ideas and ideational creativity. In M. A. Runco and R. S. Albert (Eds.). *Theories of creativity*. Newberry Park, CA: Sage.
- Runco, M. A. (1999). Fourth Grade Slump. In M. A. Runco & S. R. Pritzker (Eds.), *Encyclopedia of Creativity, Vol. 1. A-H*. San Diego, CA: Academic.
- Runco, M. A., Johnson, D. J., and Bear, P. K. (1993). Parents' and teachers' implicit theories of creativity. *Child Study Journal*, 23, 91-113.
- Shepherd, R., & Shepherd R. (2002). *1000 symbols: What shapes mean in art and myth*. London: Thames and Hudson.
- Sternberg, R. J. (Ed.). (1999). *Handbook of creativity*. New York: Cambridge University Press.
- Torrance, E. P. (1962). *Guiding creative talent*. Englewood Cliffs, NJ: Prentice Hall.
- Torrance, E. P. (1968). A longitudinal exploration of the 4<sup>th</sup> grade slump in creativity. *Gifted Child Quarterly*, 12, 195-197.
- Torrance, E. P. (1977). *Creativity in the classroom*. Washington, DC: National Education Association.
- Torrance, E. P. (1979). *The search for satori and creativity*. Buffalo, NY: Creative Education Foundation.

Torrance, E. P. (1984). Some products of twenty-five years of creativity research. *Educational Perspectives* 22 (3) 3-8.

Zausner, T. (1998). When walls become doorways: Creativity, Chaos Theory, and physical illness. *Creativity Research Journal*, 11, 21-28.

Chapter VII

APPENDICES

Appendix A

Concept Paper

# The Impact of Learning to Draw on Creative Awareness

Name: Craig Puffer  
1/31/06

Date Submitted:

Develop a Skill and Use It to Improve the Quality of Life for Others

## What Is This Project About?

Although I have not yet found an explicit statement in the literature that links three childhood development phenomena, I believe that the link exists. Specifically, and in order of occurrence, the phenomena are: (1) the loss of children's ability to teach themselves how to do things, at around age five; (2) the collapse of their creative abilities, from ages five to seven; and (3) the cessation of drawing, which occurs from ages five to ten. American culture holds artists up as exemplars of creativity; this is reflected in the fact that when asked to describe the traits of creative people, non-artists list "artistic" most frequently; further down that list, non-artists list "draws well". This is a cultural bias, not a universal characteristic; although some cultures do have a similar emphasis on art and creativity. Intriguingly, when people who consider themselves artistic are asked to list the traits of creative people, neither "artistic" nor "draws well" appear on their list; this is because the artists know that neither ability is required for—or indicative of—creative ability. However, in the minds of many of the non-artistic public, which is the vast majority of Americans, the following line of thinking seems to prevail: "Artists are creative; artists can draw; I can't draw—I'm no artist—therefore, I'm not creative."

Children stop drawing for many reasons, but the most common are due to criticism or ridicule, by adults or peers. How often have you overheard someone say, "That doesn't look like a \_\_\_\_\_! You can't draw!" Unfortunately, many children eventually come to believe this. At the developmental stage that many of them stop drawing, (and the last big fall off is around the fourth grade), two issues are paramount: their peer group's opinions have enormous influence, and in their art, "realer is better". Drawing ability substantially freezes at the level where it was stopped, and to a degree, so do aesthetics; when people say they can't draw, they almost always mean they can't draw a satisfactorily realistic representation of some object. This project will teach representational drawing to people who believe they can't, and survey their opinions of their creative abilities before and after doing so; it is believed that the subjects creative awareness and self-confidence will increase, and possibly self-esteem as well. If the expected results occur, it will provide suggestive evidence that a link exists between the three phenomena listed above.

Rationale for Choice:

I chose this skill substantially because I love art; I have spent most of my life making, looking at, studying and thinking about art. Many of the most blissful moments of my life have occurred while making art and viewing art, and I have achieved a strong understanding of its meanings and processes. I would argue that as a human activity, art making is second only to our taking care of each other; it provides the dream space that allows us to progress. I want to share all this with as many people as I possible; my passion for the subject is leading me to become a full time art teacher. When drawing in public, I have often had people approach me, and sadly say a variation of “You’re such an artist; I can’t even draw a straight line.” My arguments to the contrary usually fall on deaf ears, so having a proven program might help. I’m also challenged by the fact that Americans often take a dim view of art, and art education is under-funded and undervalued. I chose to teach drawing because it is the most fundamental skill for all the visual arts; it allows you to see into things. I chose to teach representational drawing, because for many people, realism is still the definition of “good” art, and I can use it to build bridges to less understood forms. The process used in learning to draw representationally can also be applied to many other areas of the learner’s life, and can have numerous other collateral benefits and impacts. I have a very high level of passion for this project, as I sense that it may well be my life’s work.

### What Will be the Tangible Product(s) or Outcomes?

1. The first major product will be a program for speed-teaching the fundamentals of representational drawing, and various perceptual concepts that I believe will make a difference in doing so; as such, it will utilize both cognitive and meta-cognitive processes. The biggest obstacle most people face in learning to draw is the belief that they can’t, so substantial effort will be directed at reversing that belief.
2. I will produce a series of teacher aides and teacher products, as well as handouts, to illustrate my points.
3. The second major product will be an alpha-tested revision of the original program, which will hopefully also be field-tested in the near future.
4. I will begin to design and test a Likert-scale questionnaire, to survey my students’ attitudes and feelings about art and creativity, and their artistic and creative abilities.
5. I will generate a feedback form for my students.
6. I will produce a final write up of this project and its results, and explore directions it may take in the future.
7. I will make a list of drawing subjects and exercises.

8. I will generate a bibliography.

### What Criteria Will You Use to Measure the Effectiveness of Your Achievement?

1. The first criteria for success will be generating a complete drawing program, that is ready to be field tested, along with the other products listed above.
2. The program should have at least six 2-hour component lessons, and the teacher aids and products needed for them.
3. All lessons should at least be alpha-tested, and feedback will be sought from participants
4. In the live version of my program, its effectiveness will be visible in my students' portfolios, as will their progress, (or lack of progress). I predict that this accelerated program will take between six and eight weeks. The benchmark will be a substantial improvement in the students' drawing ability, and/or a substantial change in their attitude toward art and creativity.
5. I will register my program with the Human Subjects office at Buffalo State College, to avoid ethical and procedural problems that might negatively impact my students.

### Who Will be Involved or Influenced? What Will Your Role Be?

1. I will be the designer of the program, its content, and its teacher products. I will also deliver the program, evaluate its results and write them up.
2. Dr. Mary Murdock will be my faculty advisor for this project.
3. Other members of the International Center for Studies in Creativity faculty will be consulted on the design of the Likert-scale Questionnaire, as will faculty from the Education Foundations department.
4. Members of the faculty of the Art Education department will be consulted about the design of the curriculum.
5. Gina Game, of Buffalo State's Research Foundation, will examine the program for potential risk to its subjects, and for adherence to ethical and procedural guidelines.

6. Rita Ware, CRS 690 student, will be my sounding board partner, and may provide an opportunity to field test the program through her workplace.
7. Other students in CRS 690 will be asked to provide feedback on the program as well.
8. Other students at the International Center for Studies in Creativity will be asked to alpha-test various modules of the curriculum. While they presumably view themselves as highly creative persons already, it will be interesting to see what impact learning to draw has on them.

### When Will This Project Take Place?

This project will officially take place from January, 2006 to the end of April, 2006. It will serve as a pilot test for expanded research on the same theme, which I plan to conduct over the next several years, and with a variety of test groups. Ultimately, I hope to write a book about it.

### Where Will This Project Occur?

Research and development of the program will be done at Buffalo State College, in Buffalo, NY.

Testing of modules will take place at Buffalo State, and at an off-campus location in the region which is yet to be determined.

### Why is it important to do this?

This project may have many positive impacts on both its participants and the people they come in contact with. As stated above, drawing allows you to see into things; it can increase both your observational and interpretive abilities, and literally change the way you view the world. Part of the power of the arts is that they encourage you to simultaneously use all three of the domains from Bloom's Taxonomy, the Cognitive, the Affective, and the Psychomotor. The process of drawing from observation, its steps, phases, lessons and evaluations can be profitably applied to other areas of the students' lives. Drawing can be used as a form of meditation, and can reduce stress and increase patience and inner peace. Drawing can be an extremely powerful tool for creativity and problem solving, as our brains devote enormous resources to the processing of images; the root of the word "imagination" reflects this. I also believe that learning to work with images—to both draw and imagine them—is as important and as fundamental to our intellectual development as learning to use words and numbers. Drawings by quadriplegics and other severely disabled people show that literally anyone can physically draw at a high level; the main barrier to some people is their belief that they can't draw. One powerful side effect of learning to draw is that it can help people develop



their emotional intelligence, and change their inner dialogues to more productive modes. Perhaps the most important reason to teach drawing, especially to people who believe they can't draw, is that once they learn to do so, they have reason to examine other areas of their lives for self-made barriers and stumbling blocks. In other words, they may ask themselves "What else did I think I couldn't do, that I must now re-evaluate?"

### Personal Learning Goals:

1. I want to improve my ability to teach drawing.
2. I want to demonstrate the link between the three childhood phenomena.
3. I want to prepare a curriculum I can adapt to many situations and types of learners.
4. I want an alpha-tested version of the curriculum.
5. I want an alpha tested version of the Likert-scale Questionnaire.
6. I want to build a framework that allows me to continue this line of research into the future.

### How do you plan to achieve your goals and outcomes?

I will study existing drawing courses for a distillation of what they teach, which I will break into sub-lessons. I will consult with Art Education faculty about the curriculum. I will make illustrations of techniques as needed. I will try to identify meta-cognitive processes that may help students get over the hump of their disbelief; examples include Emotional Intelligence and Visualization. These lessons will be included in the structure of the course. I will seek volunteers to alpha-test each sub-lesson, and I will seek their feedback. I will develop forms to survey their feelings about art and creativity, which will hopefully both increase positively. I will adhere to Buffalo state guidelines for research with human subjects. I will brainstorm possible course projects, as well as any problems that may arise.

### Evaluation:

1. In the live version of my program, its effectiveness will be visible in my students' portfolios, as will their progress, (or lack of progress). I predict that this accelerated program will take between six and eight weeks. The benchmark will be a substantial improvement in the students' drawing ability, and/or a substantial change in their attitude toward art and creativity.

2. Although the alpha-testing of lesson modules may not generate a similarly visible improvement, I will use feedback forms to measure the students satisfaction with the program.
3. I will evaluate my program at its midpoint, and make necessary adjustments.
4. In the live version of my program, I will use the Likert-scale questionnaire before and after the program to try to gauge any shifts in my students' attitudes about art and/or creativity.
5. I will evaluate my efforts overall, and summarize them in my final write-up.

### Project Timeline:

Month	Week Number	Activity	Number of hours required
January	4	Draft of concept paper	6
January	4	Pick up Human Subjects criteria and forms from BSC Research Foundation; read and fill out	3
January	4	Begin contacting people I need to consult with	1
February	1	Final version of concept paper	6
February	1	Continue literature search, copy and read.	5
February	1	Begin Curriculum outline	3
February	1	Begin draft of Questionnaire	2
February	2	Formal meetings with various faculty to discuss curriculum; make revisions	2
February	2	Formal meetings with various faculty to discuss questionnaire; make revisions	2
February	2	Continue literature search, copy and read.	5
February	2	Fill out curriculum outline more	2
February	2	Start lesson plan skeletons	2
February	2	Start planning teacher aides and products	2
February	3	Continue literature search, copy and read.	5
February	3	Continue lesson plans	4
February	3	Continue planning teacher aides and products	2
February	3	Work on Draft of project write-up	1
February	4	Continue literature search, copy and read.	5
February	4	Continue making teacher aides and products	3
February	4	Program Week 1, module test	2
February	4	Work on Draft of project write-up	1
March	1	Continue making teacher aides and products	3

March	1	Program Week 2, module test	2
March	1	Work on Draft of project write-up	1
March	2	Continue making teacher aides and products	2
March	2	Program Week 3, module test	2
March	2	Work on Draft of project write-up	1
March	3	Draft of project write-up	6
March	3	Program Week 4, module test	2
March	4	Program Week 5, module test	2
March	4	Work on final version of project write-up	1
April	1	Program Week 6, module test	2
April	1	Work on final version of project write-up	6
April	2	Program Week 7, module test	2
April	2	Work on final version of project write-up	6
April	3	Final version of project write-up	12
April	4	Prepare presentation for class	5
April	4	Prepare original sets of all signatory pages	.25
April	4	Copy, bind, submit 4 final hardbound projects to instructor	2
April	4	Submit Microsoft Word CD version of complete project	.25
April	4	Submit title of project to Department Secretary	.25
		Total Hours	121.75

### Pertinent Literature and Resources:

Billoni, A. G. (2002). The art gallery excursion as a bridge to idea generation and a heightened aesthetic experience. Unpublished masters thesis, Buffalo State College, Buffalo, NY.

Cameron, J. (2002). *The artist's way*. New York: Penguin.

Csikszentmihalyi, M. (1996). *Creativity: flow and the psychology of discovery and invention*. New York: Harper Collins.

Csikszentmihalyi, M. (1990). *Flow: the psychology of optimal experience*. New York: Harper & Row.

Davis, G. (2003). *Creativity is forever (5<sup>th</sup> ed.)*. Dubuque, IA: Kendall/Hunt.

Frankl, V. (1992). *Man's search for meaning: an introduction to logotherapy* (I. Lasch, Trans., part one)(4<sup>th</sup> ed.). Boston: Beacon Books.

- Gardner, H. (1993). *Creating minds: an anatomy of creativity seen through the lives of Freud, Einstein, Picasso, Stravinsky, Eliot, Graham and Ghandi*. New York: Basic Books.
- Gelb, M. (2004). *How to think like leonardo da vinci*. New York: Delta Trade Publications.
- Guilford, J. P. (1950). Creativity. *American Psychologist*, 5, 444-454.
- L'Engle, M. (1998). *Walking on water: reflections on faith and art*. (Commemorative Edition). Wheaton, IL: Harold Shaw Publishers.
- London, P. (1989). *No more secondhand art: awakening the artist within*. Boston: Shambhala.
- May, R. (1975). *The courage to create*. New York: Bantam.
- Rees, M. (2003). *Our final hour: A scientist's warning: how terror, error, and environmental disaster threaten humankind's future in this century -- on earth and beyond*. New York: Basic Books.
- Rhodes, M. (1961). An analysis of creativity. *Phi Delta Kappan*, 42, 305-310.
- Sisk, D., & Torrance, E.P. (2001). *Spiritual intelligence: developing higher consciousness*. Buffalo, NY: Creative Education Foundation Press.
- Torrance, E. (1979). *The search for satori and creativity*. Buffalo, NY: Creative Education Foundation.

## Appendix B

### Likert-scale Questionnaire on Art, Drawing, and Creativity

## Survey of Attitudes About Art, Drawing and Creativity

Please tell us a little about yourself:

Male\_\_\_\_ Female\_\_\_\_\_ Age\_\_\_\_\_

Education (Please circle one) Grade: 1 2 3 4 5 6 7 8 9 10 11 12 College: (years) 1 2 3 4 5 6 7 +

Please circle the number that you feel most accurately describes your response to each of the following statements. Additional space has been provided for any comments you wish to make.

	Strongly Disagree	Disagree	Unsure/ Neutral	Agree	Strongly Agree		
1. I am a creative person. ....	1	2	3	4	5	6	7
2. I enjoy being creative. ....	1	2	3	4	5	6	7
3. I wish I was more creative. ....	1	2	3	4	5	6	7
4. Creative people are artistic. ....	1	2	3	4	5	6	7
5. Artists are creative. ....	1	2	3	4	5	6	7
6. Creative people can draw well. ....	1	2	3	4	5	6	7
7. Artists can draw well. ....	1	2	3	4	5	6	7
8. I can draw well. ....	1	2	3	4	5	6	7
9. I wish I could draw better. ....	1	2	3	4	5	6	7
10. Drawings are better when they look real.....	1	2	3	4	5	6	7
11. I enjoy looking at art ....	1	2	3	4	5	6	7

## Appendix C

Glossary / Definition of Terms:

### Glossary / Definition of Terms:

CREATIVITY: A good, broad definition is provided by Amabile: (1997, p.19)

“Creativity is the product of novel and appropriate solutions to open ended problems in any domain of human activity.” Those problems can be personal or professional, individual or social, and the solutions may range from a painting to a new means of processing medical insurance claims. Ackoff and Vergara (1981, p.2) described creativity as “the ability to modify self-imposed restraints,” which applies directly to the research topic of this paper.

CREATIVITY CONSCIOUSNESS: The awareness of one’s own creative abilities and creative nature, which includes both the self-confidence needed to take risks, and the will to follow-through and implement ideas.

DRAWING: For the purposes of this project, drawing is defined in classic Western terms: observation-based, representational, realistic, and relatively objective, (in the sense that two people drawing something from the same angle would achieve recognizably similar results),

EMOTIONAL INTELLIGENCE: A process by which a person controls his or her own emotions and reactions in order to get the desired results out of situations.

META-COGNITION: Simply put, this is thinking about thinking. While learning to draw, students will be shown how to monitor their own thinking; Emotional Intelligence is an example of a meta-cognitive technique.

PORTFOLIO REVIEW: Students will create chronological portfolios of their work, upon which they will record dates of creation and time spent on each drawing; this will provide them with an objective means of evaluating their progress.



TRADITIONAL DRAWING TECHNIQUES: The standard way of teaching drawing, it includes ideas such as line contour, tone, proportion, perspective and anatomy.

VISUALIZATION: A mental imaging technique that uses imagination to produce results in real-world activities, by creating a multi-sensory picture, and then exploring it.

Visualization can be used to quell fears of speaking before a crowd, to plan a future factory expansion, or to improve a golf swing.