

Guided Imagery in the Curriculum

Teaching with imagery can help students focus on lessons, retain information, improve psychomotor skills, and accept themselves and others.

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Einstein resolved complex mathematical and physical problems through his keen ability to perceive, feel, and interpret inner images. Aristotle believed that thought was housed in images that evoked emotions and revealed inner knowledge. Pythagoras taught his disciples to solve mathematical problems by consciously evoking dream imagery. The German chemist Kekule discovered the molecular structure of benzene while imagining a snake swallowing its tail. And the French mathematician Poincare solved complex mathematical problems in moments of visual reverie.

Because the abilities of these great thinkers and the research from consciousness psychologies (Bruteau, 1979; Pelletier, 1977, 1978; Pribram, 1976; Wilber, 1977) tend to validate the Kantian notion that "thinking in pictures precedes thinking in words," educators are turning to imagery activities to expand and deepen mental performance.

Imagery activities can serve the standard curriculum in two ways: as preparation for learning and as course content. Teachers often begin classes with music to induce relaxation, followed by deep breathing and sensory awareness exercises. When the students are comfortable with basic centering exercises, they are introduced to longer, guided sensory image journeys where they visit favorite places and experience the pleasures of nature. Once they have achieved a state of relaxation and concentrated focusing, they begin the lessons for the day.

When students become accustomed to basic imagery exercises, they engage

naturally in shorter focusing exercises throughout the day that enable them to quiet mind chatter, dispel distractions, and sharpen mental attentiveness. Whenever necessary, teachers ask students to close their eyes, take a deep breath, and picture a specific object, such as a piece of fruit, and examine it in detail. Or they might suggest that the students picture a shape and change its color from red to orange, green, blue, and back again to red.

Many teachers report that students ask for these "mental calisthenics" whenever they feel distracted or unable to focus on material presented in class. Several school districts have incorporated focusing techniques in the curriculum, and some offer parallel training programs for parents. Students not only use these exercises in class, but for work, sports, and in their personal lives as well.

Imagery used in elementary and secondary school courses usually falls into one or more of three categories: guided cognitive imagery, guided affective imagery, or guided transpersonal imagery.

Use of two or more of these types within a single lesson is called confluent imagery.

Guided Cognitive Imagery

A common use of imagery is to develop thinking skills and accelerate mastery of cognitive material presented in class. Teachers usually have district-mandated cognitive objectives to guide their lesson planning; they use imagery activities to enhance mastery of those objectives. For example: Students in the sixth grade are asked to write compositions about "Things That Bother Me at School" and "Things I Like at School." The teacher begins the lesson by having the students close their eyes and imagine themselves as photographers taking pictures of things and situations they like and dislike about school. Then they're directed to draw what they "photographed" and write about what happened during the imagery journey. Students tend to write more original material (as opposed to parroting ideas from books or other students) after the imagery prompt.

In a tenth grade geometry class, students are memorizing definitions for trapezoid, rhombus, parallelogram, and quadrilateral. After reading the definitions and looking at the shapes, the students close their eyes, breathe deeply and visualize a shape in their minds. When they open their eyes, they check to see if this internalized shape agrees with the definition. With eyes closed again, they change the shape in any way they wish as long as it fits the general definition. When they open their eyes, they check to see if their recreated shape fits the original definition. They then

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draw the internalized shape, and the teacher checks the drawing for accuracy. This extro/introspective procedure enables both students and teacher to know if the material is perceived accurately. Students learn the definitions more quickly and for longer periods of time than when the material is presented solely in a noncovert—or physical—manner.

In a third grade social studies lesson, the children are led on an imaginary journey to a country they are studying. Once there, they visualize themselves as a member of the culture and, through an image journey, tour the land, visit with the people, shop in the markets, visit the monuments, attend the schools, and eat the foods. Teachers note that children's retention of facts about the country improves greatly following the imagery imprint.

In each of these examples, teachers lead students in specific imagery activities related to cognitive themes and objectives. And in each case, students are required to relate their subjective image experiences to this cognitive material, thereby wedding the internal processing of information to the external communication and validation of information. Analytical processes become operative only after the imagery processes have evoked a sufficient amount of content to be treated.

Students taught via imagery processes merged with other affective procedures tend to score significantly higher on measures of cognitive evaluation for oral and written communication and reading and writing skills (Galyean, 1980, 1981, 1982). Both empirical and observational reports indicate that students also tend to be more attentive in class, work more cohesively with others, attend classes more frequently, and do more of whatever work is assigned. Nonempirical evaluation of artwork shows that students' art seems more advanced than their grade level and training might indicate.¹

Guided cognitive imagery may also be used to learn and refine psychomotor skills. For this purpose the teacher presents the students with image activities that direct them either to rehearse a specific skill or to practice mental movements that develop the skill.

For example, second graders are practicing printing block letters. The teacher first shows them charts of the letters and then directs them to close their eyes and visualize the letters. Then they open their eyes and trace the letters in the air.

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Following this they close their eyes, imagine the letters, and trace them in the air. After doing this several times, the children are given crayons, and large pieces of paper are taped to the walls or floor. While listening to moderately rhythmic music (such as Vivaldi, Fasch, or Beethoven), the children once again close their eyes, visualize the letters, open their eyes, and draw the letters in color on the large sheets of paper. Then they repeat the procedure by drawing the letters on writing paper. At all times they are told to picture themselves drawing the "perfect" letter. Teachers have noticed that the more spontaneous and fluid the movements of the children, the more balanced the letters. Uninterrupted by analytical chatter, the children are able to draw on their holographic images of "perfect letters" and reproduce them in their written work.

Another example, which can be adapted for use at all ages, illustrates mental movements that develop various skills.² Students are directed to work with their nondominant hand: right-handers work with their left hands, and vice versa. They are then led through a series of exercises such as finger, hand, arm, shoulder, head, hip, leg, and foot movements on the nondominant side. These movements are orchestrated with classical music selections. Once everyone is comfortably engaged in these "non-dominant side waltzes," the entire procedure is rehearsed mentally. Following this covert rehearsal, physical rehearsal is again repeated for the dominant side followed by another period of

mental rehearsal, and ending with physical rehearsal. Once a balance between the two sides is achieved, students are directed to draw and write first with the nondominant hand, then with the dominant hand.

Handwriting, drawing ability, and creative thinking and writing improve for many individuals following the mental movement activity. By fostering the use of creative intuitive intellectual centers of the brain along with the rational analytical centers, and by encouraging the flow of verbal and nonverbal communication, students experience the joy and sense of expertise that flow in moments of homeostatic harmony within the brain/mind connection.

Observations of improved student performance following these activities bear out Sperry's (1979) and Bogen's (1982) claims that by expanding the use of holistic modes of learning such as art, music, movement, and drama immersed in imagery, we increase our intellectual capabilities. Mental acuity seems to sharpen during integrative learning.

Guided Affective Imagery

Imagery can also be used as a tool for awareness and acceptance of self and others. An individual's sense of self-worth greatly influences the ability to achieve in a variety of areas, intellectual endeavors being a major one (Coopersmith, 1967). In fact, our assumptions about the power of the "self-fulfilling prophecy" have been documented in brain/mind research through studies of the limbic-neo cortical connection by researchers such as MacLean (1978) and Gray and La Violette (1982). When an image of success is imprinted in the limbic brain, the person's actions will follow positive directions.

Researchers such as Hart (1975) and Ornstein (1972) propose that the brain acts on a programmatic basis similar to a computer. We program ourselves with images of desired actions or ways of being, and our actions follow from these blueprints. Once students have changed negative learning images to "can do" images, school work improves as well as athletic ability, relationships with family and friends, and a variety of other psycho-physical skills.

Affective imagery enables students to develop healthy self-concepts by owning their own power, recognizing latent capabilities, and enlarging those that are already working for them. This is done by presenting them with images that



help them (1) recognize basic needs, wants, and preferences expressed as feelings that influence their attitudes, behaviors, and talents, and subsequently shape their personalities; and (2) identify and transform self-defeating scripts into helpful ones. Powerfully designed "Successful Me" types of images enable them to imprint mental pictures of themselves as capable, productive, and well-received by others.

Students also learn to become comfortable with introspection and self-disclosure, two essentials in the formation of healthy self-determined concepts. The ability to look within and tell the truth of innermost stories has been cited by such psychologists as Bugenthal (1967), Jourard (1971), May (1961, 1967), and Rogers (1961, 1980) as a major constituent of mental health. By teaching young people to be comfortable within themselves, and to accept others as they are, we are helping improve mental health. Here are some examples of guided affective imagery:

High school Spanish students, while working with the idiomatic expression "I need" and the verb "I want," are asked to close their eyes and imagine themselves on a road winding through a beautiful forest. They are directed to feel the warmth and gentleness of the

day, and to experience through all of their senses the beauty of the place. While walking along this road they come upon a box in which they find two objects. One object represents their most important needs and the other represents something they want. They examine these objects and talk with them to receive more information on what they mean to the individual. When this is completed, the students open their eyes and draw and write about the experience. They share this information with each other by using the language matrices "I need. . ." and "I want. . ." Empirical studies reveal that language proficiency as well as interpersonal relationships improve through activities such as these (Gal-yeon, 1982).

Fifth graders are discussing ways of resolving conflict. The teacher directs them to close their eyes, breathe deeply, and visualize natural imagery such as trees, flowers, animals, clouds, and the like. Soft music in the background helps the students achieve a pleasant state of relaxation. The students are then asked to picture someone with whom they are, or could be, in conflict. They then imagine themselves having a conversation with this person as if he or she were a best friend. They are told to experi-

ence the love and care they have for this person, and to see themselves as understanding the other person's needs and ideas. Then they are asked to picture both their own and the other's words and ideas meeting symbolically in the space between them. They watch the words and ideas intermingle until they become as one. Then the transformed words and ideas return to each person, and the students picture the situation as resolved. Children (and often their parents) report that this mental activity helps them resolve conflicts in real life situations.

Because people seem to learn better in an environment that is safe, validating, and nurturing, starting the day with bonding activities develops synergy among participants. For instance, everyone stands or sits in a circle with their eyes closed and pictures the love in their hearts as a warm fire burning gently from their chests. In the background is appropriate mood music such as "You Are So Beautiful To Me" by Joe Cocker, "I Like Myself" by Hap Palmer, or classical selections such as Ricciotti's "Concertino No. 2 in G Major," Corelli's "Concerto Grosso No. 8 in G Minor," or Pachelbel's "Canon in D." Students feel this warmth while thinking about all the people who care for them. Then they gather their love feelings and fire symbols and send them through their right hand into the left hand of the next person, circulating the feelings through the entire group. After a few minutes, participants gather up the original feeling and symbol that was sent through the group and draw it back into their hearts. They may visualize family members, friends, and others in the center of the group receiving this love energy.

People often report tingling sensations, warmth in the hands and upper body, and a general sense of being "uplifted" while experiencing love energy. Jean Millay, a biofeedback researcher who monitored the brain waves of a group engaged in this activity, noted how their brain waves synchronized during the activity.³ Apparently, bonding activities help people become "of like mind" without any one mind dominating.

Guided Transpersonal Imagery

A third use for imagery is to promote transpersonal awareness and growth. The term "transpersonal" means to go beyond the ordinary physical-emotional way of viewing oneself and the world,

and to recognize as valid mystical, psychic, and spiritual dimensions as well. Transpersonalists study consciousness or "altered states" of perception in all forms indicated as real by persons who relate their innermost experiences, and are primarily concerned with "optimum psychological health and well-being" (Walsh and Vaughan, 1980). It is also the recognition of the divine or the ultimate wisdom in life (Tart, 1975).

Teachers and counselors who themselves believe in and are comfortable working with transpersonal dimensions of their own lives bring this awareness to their students by leading them in imagery activities designed to activate profound levels of consciousness. Symbols such as "light," "fire," "gold," "wise persons," and "voyages to mountain tops, skies, and castles," are often included in these images. Talking with personal guides, archetypal figures, and communicating with spiritual symbols such as crosses, mandalas, religious books, and gold crowns sometimes induces transpersonal awareness. Students are not only interested in exploring transpersonal consciousness, but often relate personal stories pointing to their own spiritual lives.

The following script is a transpersonal imagery that doubles as a language arts activity. The children are asked to draw, dramatize, and talk about their experiences produced by the imagery (Gal-yeon, 1979):

Close your eyes. Imagine you are looking at the sun. Let your sun be beautiful and warm. Notice how your sun seems very friendly and does not burn you. Let the sun come to the top of your head and begin to go down through your body. Let the sun go through your whole body until it goes through the bottom of your feet into the ground beneath you (pause). Now open your eyes and look at everyone in the room. Look at your hands and see the light in your hands. Take your light and send it into the center of the room for everyone to share. Notice how you receive the same light from everyone else (pause). Now think about someone you love very much. Let that person be in the center of this room receiving the same light as you (pause). Now make a wish that we all become more joyful, wise, and filled with understanding and love (pause). While we are doing this tell me what you see and feel.

Because some types of transpersonal activities seem related to spiritual traditions, public school teachers should be careful to distinguish between imageries that are overtly religious in nature and that target spiritual themes (such as those that might be taught in a parochial setting or as part of a religious curricu-

"imagery activities seem to expand the range of intellectual capabilities. . . ."

lum) and those imageries that target inner awareness and expanded intellectual performance as general themes. The fact that some students surface feelings and ideas of a spiritual nature such as they might after reading great works of literature or experiencing major works of Middle Age and Renaissance art, does not imply that the major focus of the lessons is religious in nature. Parent, community, and school support is always advised in this regard.

Confluent Imagery

The use of imagery in two or more ways—for instance, the "I need—I want" exercise practiced by Spanish students—is called confluent imagery.

Here we have the merging of cognitive (language skills) and affective (personal skills) objectives. Another example is the imagery on "conflict resolution" used with fifth graders. After the children worked through real areas of conflict in their own lives, they applied imagery to various social studies themes such as "President Reagan talking with Khadafy" or "baseball players negotiating with team owners." The children role-played these situations by closing their eyes and visualizing themselves as the individuals in conflict. Then they communicated via mental imagery interactions. In this lesson, cognitive objectives (political/economic differences) were merged with affective objectives (personal skill—conflict resolution). The transpersonal imagery activity involving the use of sun, light, love symbology and energy transference expanded the vocabulary and grammar skills of elementary children, thereby

merging the cognitive (language proficiency) objectives with the transpersonal objective.

At the Center for Integrative Learning, we have recently completed two empirical studies showing the positive effects of imagery activities on junior high school students. In the first study, we worked with a high school Spanish teacher whose students were ranked in the lowest 25 percentile of reading ability. They were gang-related kids who disliked school and, as such, were hardly interested in learning Spanish. We taught the students to meditate for five minutes at the beginning of class by seeing themselves bathed in a warm light, walking through beautiful nature scenes. They would then climb to the top of a mountain and look down at the earth where they would see themselves in school doing everything well: studying, answering questions, taking tests, cooperating with others who wanted to help them, receiving good marks on tests, and being recognized and appreciated by others. After four months of this activity, outside evaluators noted a significant decrease in disruptive behaviors, as well as a significant increase in Spanish skills (Gal-yeon, 1980, 1982).

In a second project, tenth grade remedial English students were asked to view a slide of a rose. They were given one minute to draw the rose and two minutes to write about it. Then they were told to put these papers away and prepare for a guided imagery activity. They closed their eyes and created a garden where they could see, smell, touch, and feel the vibrancy of many flowers. Suddenly they were to see a rose bush with one special rose on it. They became the rose and felt what it was like to sway in the breeze, warm their petals in a friendly sun, wash their leaves in a gentle rain, and watch people admire their beauty.

Following this ten-minute imagery, the students opened their eyes, viewed the slide once more, and were given one minute to draw the rose and two minutes to write about it. Analyses of their compositions revealed a significant increase in vocabulary and complexity scores. Art teachers viewing the drawings claimed that those done after the imagery activity showed more balance and greater richness and depth than those done prior to the imagery (Gal-yeon, 1981).

As we have observed in these projects, imagery activities seem to expand the range of intellectual capabilities and

increase students' interest in and penchant for current curricular offerings. Advocates of imagery-based learning activities predict that their continued use will not only reduce trends toward diminishing academic achievement, but will also enable students to uncover and experience vast and diverse ways of using their minds to gather and process data leading to new, even more creative forms of knowledge.

Results from these early projects are encouraging. The current interest in guided imagery as a powerful agent for affecting physical and emotional health, as well as for intellectual acuity, is sufficient testimony to the validity of imagery as a major curricular intervention in education.

Further research is needed to refine current uses of imagery. We still do not know for whom imagery works best, what are the long-term cognitive and personal gains from prolonged exposure to imagery work, under what environmental conditions imagery activities seem to be best received, and if there are individuals who, due to personal philos-

ophy, acculturation, or preparation should not work with inner imagery. Time and carefully prepared experiments will clarify these areas for us.

In the meantime, we need to continue developing carefully designed imagery activities in education settings, be these formal school settings or less formal learning center and home environments. As individuals continue to report what they have done, we will learn more about the full potential of the imaging mind. Our journey has just begun! □

¹Copies of empirical research reports are available for the cost of reproduction and mailing from the Center for Integrative Learning, 767 Gladys Ave., Long Beach, CA 90804.

²This exercise was originally developed by Jean Houston for her "New Ways of Being" workshops. I am indebted to Maureen Murdock for adapting it to education settings.

³Personal communication during the Brain/Mind Institute sponsored by the Center for Integrative Learning, Los Angeles, 1981.

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