Visual Discovery in Five Easy Steps

Presented by TCI

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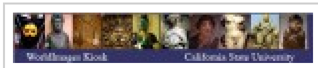
World Images



http://worldimages.sjsu.edu/

This site gives access to the IMAGES project at San Jose State University, right in our backyard. California teachers will be especially interested in the California Educational Standards section.

Photos8

http://www.photos8.com/

Photos8 has photos and wallpaper and boasts more than 13 million downloads.

Edupic

http://edupic.net/index.html

Edupic Graphical Resource is a teacher designed free image resource for educators and their students.

morgueFile

http://www.morguefile.com/

In addition to having the most morbid name, morgueFile has powerful images with an arty slant.

National Archives Experience Digital Vaults

http://www.digitalvaults.org/#

Our friends at the National Archives have created the Digital Vaults which includes 1,200 of the 10 billion records they house. A history buff's dream is what this is.

GRIN

http://grin.hq.nasa.gov/index.html

GRIN is an acronym for Great Images in NASA. This site has over one thousand images "of historical interest" that you can download in a variety of sizes.

Multiple Intelligence Teaching Strategies

Visual Discovery

Steps at a Glance

1. Use powerful images to teach social studies concepts.
2. Arrange your classroom so projected images will be large and clear.
3. Ask carefully sequenced questions that lead to discovery.
4. Challenge students to read about the image and apply what they learn.
5. Have students interact with the images to demonstrate what they have learned.

Introduction

Today's students are bombarded daily with images. Constant exposure to television, videos, computer games, the Internet, magazines, and advertisements has created a visual generation. Many teachers are beginning to notice, however, that while students certainly "consume" many images daily, they are not necessarily critical viewers who understand what they see. In fact, far from being visually literate, many of our students are so numbed by the sheer quantity and rapidity of media images that they are left visually illiterate.

As one of the multiple intelligence strategies used in the TCI Approach, Visual Discovery transforms a usually passive, teacher-centered activity—lecturing—into a dynamic, participatory experience. Students view, touch, interpret, and bring to life compelling visuals as they discover key social studies concepts. The strategy sharpens visual literacy skills, encourages students to construct their own knowledge through higher-level thinking, develops deductive reasoning, and taps visual, intrapersonal, and body-kinesthetic intelligences. Seeing and interacting with an image, in combination with reading and recording notes related to the content, helps students learn and remember salient ideas that are typically soon forgotten after the traditional lecture.

STEP 1

Use powerful images to teach social studies concepts.

The key to a successful Visual Discovery activity is using just a few powerful images that represent the key concepts of the lesson. The right image will stay in students' minds for months or even years and will serve as a powerful visual referent to help them recall key information.

"Pictures show the story; notes only tell it."
— High School Student

A few well-selected images that students carefully "read" with their visual literacy skills will have a far greater impact than a profusion of images viewed passively. Since images are not shown as fast-paced videos or computer animations, it is essential that each has a strong visual impact and tells a rich story. The best images

- are clearly tied to your content standards and teaching objectives.
- illustrate key events or concepts.
- graphically show human emotion, drama, suspense, or interaction.
- have the potential for students to step into the scene and bring it to life.
- are interesting or unusual.

For example, the first image at right, which shows U.S. troops landing in Khe Sanh, South Vietnam, illustrates the massive deployment of U.S. troops for the Vietnam War. It is a strong visual reminder of the concept of deployment. The heavily laden troops seem to be rushing into an uncertain future. This sets up an excellent opportunity for the teacher to assume the role of on-scene reporter and ask students who step into the image what they expect to confront in the jungles of Vietnam.

For the same lesson, the second photograph at right, showing U.S. troops patrolling a river, captures the danger and hardship of jungle warfare. Ask students to place themselves in the boots of these young men, and then present two simple facts: most soldiers served a 13-month tour of duty, and their average age was 19. Read from the diary of an American marine who wonders whether he'd gotten himself "out in the bushes for nothing," and your students will be left with a lasting impression.

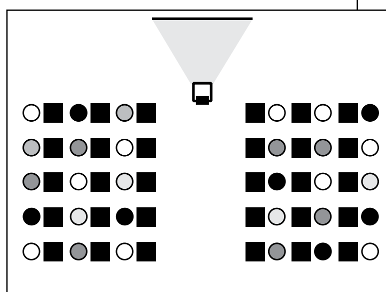
STEP 2

Arrange your classroom so projected images will be large and clear.

Careful attention to your classroom's geography is essential for a successful Visual Discovery activity. Most classroom arrangements actually inhibit interaction; students often sit in long rows where the "lucky ones" get the last seats and occasional naps. The front of the classroom is often a clutter of desks, tables, and file cabinets that make it difficult to see and touch projected images. To arrange your classroom for maximum success during Visual Discovery activities, consider the following:

Identify the best wall on which to project images. The wall should be located in an area of the room that you can make fairly dark. With too much light, the image will be difficult to see, and students will have trouble locating fine details. If your room is too dark with the lights off, use a table lamp to add soft, unobtrusive lighting. When you project a transparency on the wall, make the image as large as possible. The larger the image, the more interaction and excitement it will generate. You can easily create a large screen by covering the wall with butcher paper.

Set up your classroom for an interactive presentation. Typically, the best classroom configuration for a Visual Discovery activity is parliamentary style, with two groups of desks facing each other. Leave approximately 10 feet between the groups—enough space to discourage casual conversation, but close enough to allow students on one side to hear students on the other. The center aisle allows students to walk quickly and safely to the front of the classroom to participate actively in each lesson. You now have not one but four front rows. This room arrangement gives you more space to move around the classroom and quickly reach any student needing individual attention.



This is the most common classroom arrangement for Visual Discovery, with a wide center aisle and front staging area.

STEP 3

Ask carefully sequenced questions that lead to discovery.

For each projected image, ask a series of questions that spiral from the basic *(What do you see?)* to the critical-thinking level *(What do you suppose these people are expecting to happen?).* Students often rush to interpret images before carefully inspecting all the visual details. While these interpretations may carry some truth, students will come to sounder conclusions if you slow things down and encourage them to look for the details in the image.

As students offer facts and details about what they are seeing, move to the next level of questioning only when most of your students can "see" the answers to your questions. In this way, you will give students the building blocks they need to understand the most important concepts in each image. Be sure to link each successive question to the questions preceding it.

Your final questions may be at such a high level that only a portion of the class can answer them, but this is okay. This powerful questioning strategy enables all students to learn, and challenges students at every level. Do be aware, however, of flagging interest. To keep student engagement high, you will probably want to project a new image every 5 to 15 minutes.

In this image from the Great Depression, we see townspeople lined up to receive free food. This sequence of questions will allow students to discover a wealth of information about the image:

- What do you see in this photograph?
- What does the sign on the truck indicate?
- What are the people doing here?
- What feelings might these people be experiencing?
- Why aren't these people talking with one another?
- Would people in need act the same way today? Why or why not?

Using the Detective Analogy to Develop Effective Spiral Questions

As students learn how to analyze and interpret images, a helpful analogy is to compare their tasks to those of a detective. This detective analogy suggests three levels of investigation: gathering evidence, interpreting evidence, and making hypotheses from the evidence. Whether you are using spiral questions in a published Visual Discovery activity or you are developing and sequencing your own questions to help students explore an image, keep in mind these three levels of investigation:

Level I: Gathering Evidence Start by telling students to think of themselves as detectives, and to regard the projected image as a scene from a time or a place that they need to investigate. At this level, the detective's task is to look for evidence—details that may reveal something about the scene. Explain that the evidence should be physical—material objects they could actually touch if they were able to step into the scene.

Level II: Interpreting Evidence At this level, your student detectives begin to interpret the details or evidence they gathered at the scene. Have them formulate ideas or make inferences based on the existing evidence, such as the time period, place, or people in the scene. As your detectives share their ideas, encourage them to state their interpretation, then follow up with a "because" statement that cites

their supporting evidence. Typically, questions at this level are *what, when, where,* and *who* questions.

Level III: Making Hypotheses from Evidence At this level, the student detectives must use the evidence and their own critical thinking skills to determine the "motives" behind the scene they are investigating. Have them make hypotheses about what is happening and why. Typically, questions at this level are why and how questions that require higher-order thinking skills such as justifying, synthesizing, predicting, and evaluating.

The detective analogy helps students grasp the concept of discovering or uncovering the stories images have to tell. For example, the following series of spiral questions demonstrates how the three-level "detective" structure helps students interact with a painting related to the immigration experience.

In the image below, we see a group of emigrants leaving Hamburg, Germany, for the United States around the turn of the century.

"Analyzing a picture helps me learn better because it's a window to the past and I can see through it."
— High School Student

Level I: Gathering Evidence
- What do you see in this image?
- What key details, or pieces of evidence, do you see?
- How would you describe the scene and the people?
- What do you hear or smell in this scene?

Level II: Interpreting Evidence
- What do you think is the approximate date of this scene? Give one piece of evidence to support your answer.
- Where might this scene have taken place? Give two pieces of evidence to support your answer.
- What do you think is happening in this scene? Be prepared to support your opinion with two pieces of evidence.

Level III: Making Hypotheses from Evidence
- How do you think these people were feeling at this time and place?
- Why do you think these people are immigrating to America?

STEP 4

Challenge students to read about the image and apply what they learn.

Once students have used their visual literacy skills to analyze an image, they are ready to read something about the image in order to answer questions, fill in content gaps, further their knowledge, and enrich their understanding. This simple technique helps reluctant students to become more skilled and inspired readers. For an example of this approach in action, consider the following segment of a lesson about the growth of democracy during the Jacksonian Era. Here, students are viewing one of several lesson-related images, a painting that reflects Jackson's Indian policy.

1. **Students analyze the image.** Students "read" the painting of the Trail of Tears as the teacher guides them with spiral questions. They reach these conclusions: *Native Americans are going somewhere—traveling by foot, on horseback, and in wagons. They carry their belongings with them. They are accompanied by soldiers and appear to be unhappy about where they are going.* Having discovered much from the image on their own, students are eager to continue the learning process.

2. **Students read their text to gather more information and record notes.** With their interest piqued, students now open their books to find out more about the topic—information that either reinforces or corrects assumptions they made when they analyzed the image. Students gather a wealth of details: *The Cherokee had developed what many considered an advanced civilization. Wealthy planters and poor settlers were determined to force them out and seize their lands. Thousands of Native Americans who refused to leave were rounded up and marched west in handcuffs. Many died on the terrible journey west.* Then students write a summary paragraph in their Interactive Student Notebook.

3. **Students process what they have learned.** After completing the reading and their notes, students have more information and a better understanding of the Trail of Tears. At this point, the teacher projects the image again and asks students to compare the reality of history with the images portrayed in the painting. Students then return to their Interactive Student Notebook, where they add facial expressions and speech bubbles to two outlined heads, representing a Native American and one of the common people, to reflect how each group felt and thought about Jackson's Indian policy.

Students use their visual literacy skills to "read" the projected image of the Trail of Tears. The textbook provides them with historical details about the forced relocation of the Cherokee.

Using images to motivate and set the context for reading will increase students' literacy. When students, especially those without strong linguistic skills, experience success at interpreting visuals, they are more motivated to read. They also have a better context for understanding what they read. As a result, most will bring greater effort and more patience to that reading. Ultimately, this approach helps both individual students and the entire class become better critical viewers and thinkers.

"Unless students are actively involved in their learning, they won't remember much of what you cover. Using Visual Discovery, I not only engaged my students, but also gave them a new way of looking at the history of Africa. It worked."

— Middle School Teacher

STEP 5

Have students interact with the images to demonstrate what they have learned.

One way to assess what students have learned during a Visual Discovery activity is to ask them to "step into" the visuals and bring them to life. Your students will now use their visual, body-kinesthetic, intrapersonal, interpersonal, and logical-mathematical intelligences to demonstrate what they have learned.

Some images are so rich with drama, detail, and emotions that they simply invite students to step in and re-create the moment. This is the time for act-it-outs, the term used in the TCI Approach for mini-dramatizations of an image. Following are five ways to structure successful, dynamic act-it-outs. Your students' level of experience with this type of activity, as well as the nature of the image projected, will determine which form of act-it-out would be most effective. To ensure in-depth participation, you (or a student) will sometimes assume the role of an on-scene reporter and interview each of the characters about his or her role.

Act as the "on-scene reporter" to ask probing questions that challenge students to think deeply about social studies.

Scripted Act-It-Out For each significant character in the scene, prepare a simple script that the actor can read to bring the image to life. This is particularly effective for images that have two figures engaged in conversation. In some cases, you might include blank spaces or lines in the scripts, where actors must insert appropriate information from their notes.

Use this approach early in the year or semester to introduce act-it-outs. With a script in hand, your student actors will experience success while they hone their presentation skills, such as speaking in a loud, clear voice and facing the audience. The first few times, you may want to choose the actors, selecting students who you know will feel comfortable in front of the class and do a good job. Later you can either ask for volunteers or continue to select students yourself.

Students might participate in a scripted act-it-out to bring to life this image of two figures from the civil rights movement.

A scripted act-it-out for an image of Martin Luther King Jr. and Malcolm X discussing affirmative action might look like this:

Martin Luther King Jr.: I think affirmative action is a positive step for women and people of color.

Malcolm X: Once again, I have to disagree with you. What do you find so positive about it?

Martin Luther King Jr.: Well, for one thing, it helps to even the playing field for groups in American society who have traditionally been discriminated against in employment, job contracts, and admission to higher levels of education.

Malcolm X: I won't argue that African Americans and others haven't been discriminated against, but I'm not convinced that affirmative action is the way to correct the issue. Let's say a black man gets picked for a job over some white people. The whites will say he got the job just because he is a minority, not because he is qualified.

Martin Luther King Jr.: That may or may not be true, but once people have the opportunity, they can prove that they are qualified. Typically in the past, we haven't even had the opportunity.

Malcolm X: Precisely my point! Why should we wait around for a government program to give us a chance? Let's create our own opportunities for our own people. Let's support minority-owned businesses that will provide opportunities for our people without the government telling people what to do.

Act-It-Out with Role Cards Rather than using complete scripts, you might sometimes provide each student actor with a role card that simply tells the name of his or her character (when it is unknown, use an appropriate fictional name) and a brief description of the character. The cards should provide actors with some cues—ideas, key phrases, or questions—to help them prepare for their roles and accurately represent their characters. Give actors their role cards before you begin asking spiral questions about an image. This way, they can be thinking in terms of their character as their understanding of the image grows. During the act-it-out, assume the role of on-scene reporter and interview the characters.

This type of act-it-out is best used after students have experienced success on stage in a couple of scripted act-it-outs. Again, you may want to choose the actors the first few times, selecting students who will feel comfortable in front of the

An act-it-out can bring to life this Depression-era image of unemployed steel-workers huddled around a shantytown fire. Role cards help students identify with these impoverished figures.

class and will do a good job. After students have some experience with this form of act-it-out, you can ask for volunteers. Later in the year, you can have students prepare the role cards themselves.

Here is a role card that might be used with an image of unemployed men during the Depression:

> Your name is Joe. You used to work in a factory, but you haven't had a job for two months. You have a wife and three children. When your character is asked how he feels, include the words *ashamed*, *worried*, and *discouraged* in your response.

In the next example, the role card describes a figure in an image of Europeans boarding a ship to immigrate to the United States in the late 1800s.

> Your name is Antonio. You are from southern Italy. You are the second oldest son in your large family. Be prepared to answer these questions:
>
> - What is your name, and where are you from?
> - Why are you leaving your homeland?
> - What do you hope to find in America?
> - How do you feel about what is happening?
> - Do you think you will ever see your family again? Why or why not?

Talking Statues Act-It-Out For images that include a large number of characters or that represent especially poignant moments in time, such as the sit-in at the Woolworth's lunch counter during the civil rights movement, ask everyone to play the role of one of the figures or objects in the image. Tell students to imagine what their character is thinking or feeling at that precise moment. Then ask a group of volunteers to come forward, and have them "freeze" into the precise body positions of the different figures. One by one, touch each character on the

shoulder. That figure "comes to life" long enough to state what he or she is thinking or feeling, then freezes back into position. Each "talking statue" statement should be brief—ideally no more than one sentence.

You would typically use this form of act-it-out toward the beginning of the year or semester when you want to give many students the experience of being on stage, but in a limited and highly structured format.

Group Presentation Act-It-Out For images with several figures, you can put students into groups of four or five and assign one character to each group. On an overhead transparency or a handout, give each group some questions to discuss and to answer from the perspective of their character. Once groups have prepared their responses, ask a volunteer from each group to step into the image and take on the assigned role. During the act-it-out, you will assume the role of the on-scene reporter and interview the characters, asking questions similar to those discussed in the groups.

This type of act-it-out works better later in the year when students are familiar with the act-it-out format and are ready to take on more responsibility.

Impromptu Act-It-Out Besides the various forms of planned act-it-outs, you can call for impromptu act-it-outs whenever you encounter an image that involves clearly dramatic interaction. After the class has analyzed an image, completed any related reading, and recorded their notes, have volunteers step into the image—with their notes, if needed—and assume the roles of some of the figures. Either you or students in the audience can then act as on-scene reporters to interview the figures. For images that are "read" easily, consider using the impromptu act-it-out before students turn to the related reading, to further pique their interest in the text.

Impromptu act-it-outs are most successfully used later in the year or semester, when students are confident about dramatizing images and need less structure, or when they are already familiar with the historical content of the image and can react to it spontaneously.

Impromptu act-it-outs are often tense and emotionally charged as students feel and appreciate the passions reflected in the image. Using this image of a Vietnam War protest, you might have students step into the roles of protesters and police.