

3-25-2002

The Visual learner and information literacy: Generating instruction strategies for design students

Jeanne M. Brown

University of Nevada, Las Vegas, jeanne.brown@unlv.edu

Follow this and additional works at: https://digitalscholarship.unlv.edu/lib_articles



Part of the [Curriculum and Instruction Commons](#), [Information Literacy Commons](#), and the [Instructional Media Design Commons](#)

Repository Citation

Brown, J. M. (2002). The Visual learner and information literacy: Generating instruction strategies for design students. *Art Libraries Society of North America 30th / Visual Resources Association 20th Joint Annual Conference 7*. Art Libraries Society of North America; Visual Resources Association.
https://digitalscholarship.unlv.edu/lib_articles/101

This Conference Proceeding is protected by copyright and/or related rights. It has been brought to you by Digital Scholarship@UNLV with permission from the rights-holder(s). You are free to use this Conference Proceeding in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/or on the work itself.

This Conference Proceeding has been accepted for inclusion in Library Faculty Publications by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact digitalscholarship@unlv.edu.

ARLIS/NA-VRA Annual conference
St. Louis March 25, 2002
Jeanne Brown

The Visual Learner and Information Literacy: Generating Instruction Strategies for Design Students

[1st transparency]

In this presentation I will address three questions:

1. Who is the visual learner, and are our students – ie students in design disciplines visual learners
2. Does the ACRL Information Literacy Program recognize alternate approaches to information literacy, or is it aimed at verbal learners.
3. What strategies can we use to reach design students

1. Who is the visual learner?

In some of the communications revolving around the creation of *Library Instruction for Students in Design Disciplines* the contributors discussed this very question. Susan Jurist made an excellent point, which I had not considered previously: reading is visual. So simple, yet is shifted my perception considerably, since I had been equating visual with artistic really.

So there are in my mind two types of visual learner: the visual *verbal* learner, and the visual *non-verbal* learner. The visual non-verbal learner is the one I had been thinking of. Note that my first transparency [alternately known as a “visual”] would appeal to the visual verbal learner.

Are design students visual learners?? We assume they are, because so much of what they produce is visual. But let’s examine that assumption. [2nd transparency] This visual shows architecture students in various learning modes. We’ll see which might be termed “visual.”

I have provided several characterizations of learning styles in your handouts, including a definition of visual learner from three web sites.

One definition of visual learner, found at www.nv.cc.va.us/home/nvhodgm/Nadsf199/sld011.htm, stipulates that the visual learner

- Needs to see it to know it
- Has a strong sense of color
- May have artistic ability
- Has difficulty with spoken directions

And at www.thepottershousesschool.com/The_Visual_Learner.html

- Likes to take notes
- Enjoys making charts graphs, lists
- Follows maps well
- Good at puzzles

And at www.calstatela.edu/centers/cetl/fdp_presentation/sld035.htm

Interacts visually with new information
Perceives the larger conceptual picture
Works better informally rather than formally

Read through them quickly if you would, along with the description of spatial intelligence under Multiple Intelligences, which expands the other definitions of visual learner.

Description of spatial:

These students are able to visualize objects and spatial dimensions. They excel by learning with images, picture, charts, graphs, diagrams, and art. They enjoy visual media and often spend long periods of time on visual projects. These students frequently arrive at unique, unconventional solutions to artistic problems rather than relying on traditional approaches. They often can see what others do not notice and have a willingness to experiment with a variety of materials.

[Wait one minute]

Don't many of these characteristics sound familiar? They certainly did to the architecture graduate student I asked to read through the list. Which of the three learning modes portrayed in the transparency might be termed "visual" per these definitions? **[Wait for responses]** Yes! Taking notes!!

Is the characterization of visual learner adequate to define our students? In a word, NO!

1A. Are our students – students in design disciplines -- visual learners?

Haptic Learner

"Visual learner" is only part of the learning styles picture. It can be contrasted with Auditory Learner and Haptic Learner. The Haptic Learner concept has special importance for dealing with design students. Haptic learners use models, clay, blocks, puzzles, and multi-sensory experiences to learn. Also sounding familiar, right? And looking familiar (see the architecture student working with the model).

I have included Paul Sparks' Kaleidoscope of Learning Methodologies in your handout, describing the haptic learner in contrast to the visual learner and auditory learner.

The haptic learner displays bodily-kinesthetic intelligence. I asked my graduate student to identify which of the seven intelligences she thought were particularly strong in architecture students, and in addition to spatial (visual) and bodily-kinesthetic (haptic) she chose interpersonal (related to group work) and intrapersonal (related to being independent learners who ask questions of purpose and who need to imagine and daydream).

The visual you have been staring at represents three of the four she selected.

From all this we can see that the issue of how our students learn best is more complex than visual in contrast to textual learners. But certainly visual is one important aspect we must consider.

2. Does the ACRL Information Literacy Program recognize alternate approaches to information literacy, or is it aimed at verbal learners.

Or to put it another way: do we need info lit programs that are different from those aimed at the general undergrad?

Although it has taken me awhile to feel comfortable that I have an idea what info lit IS [this is a concept from the early 90s!!] I am getting there. As ALA succinctly puts it, information literacy is a set of abilities requiring individuals to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information." (American Library Association. Presidential Committee on Information Literacy. Final Report.(Chicago: American Library Association, 1989. [<http://www.ala.org/acrl/nili/ilit1st.html>] 25April, 2000.)

The Information Literacy materials from ACRL do suggest non-textual outcomes although whether they are being incorporated into info lit programs at the moment is a question I cannot answer.

I have included on your handout the *outcomes* from standard 4 that relate to the visual and haptic learner. So even if the input [teaching style] is verbal, the output [evidence of student learning] is multi-modal [got this term from my students transportation studies!!]. Take a few seconds to scan standard 4 outcomes [faster than me reading!].

[transparency with maps]

Standard 4 in particular has specified outcomes that are especially relevant to the visual and haptic learner. It should be noted however that standard four <http://www.ala.org/acrl/ilstandardlo.html> concerns how "the information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose" – not how they find information.

Outcomes Include:

- *Organizes the content in a manner that supports the purposes and format of the product or performance (e.g. outlines, drafts, storyboards)
- *Manipulates digital text, images, and data, as needed, transferring them from their original locations and formats to a new context
- *Chooses a communication medium and format that best supports the purposes of the product or performance and the intended audience
- *Incorporates principles of design and communication

I chose this visual – an ad taken from Ad Access at Duke – to illustrate a multiple format presentation, which as you can see from the section of standard 4 I excerpted, would be seen as a demonstration of information literacy.

As for teaching methods, I have included in the handout the section from *Information Literacy Best Practices*, <http://www.earlham.edu/discus/> dealing with pedagogy and assessment, bolding the items which emphasize a variety of teaching/learning styles and methods.

Category #7: Pedagogy

Pedagogy for an information literacy program should:

- * adopt a diverse, multi-disciplinary approach to teaching and learning.
- * encompass critical thinking and reflection.
- * support student-centered learning.
- * **include active and collaborative learning activities.**
- * build on the existing knowledge that students bring into the classroom.
- * **incorporate variations in learning and teaching styles.**
- * **involve various combinations of teaching and learning techniques for individuals and groups.**
- * include collaboration with classroom faculty and student researchers.
- * relate information literacy to on-going course work.
- * **experiment with a wide variety of methods.**

Category #10: Assessment

Assessment of an information literacy program should:

- * be primarily used as part of an ongoing planning / improvement program.
- * include measurements of both program and student outcomes.
- * be integrated with course and curriculum assessment.
- * be included in episodic institutional evaluations and regional / professional accreditation initiatives.
- * be directly related to the goals and objectives of the program.
- * be focused on performance, knowledge acquisition, and attitude appraisal.
- * include both peer and self-evaluation.
- * **respect differences in learning and teaching styles by using a variety of measures such as portfolio assessment, quizzes, essays, direct observation, anecdotal, peer review, and experience.**
- * use multiple methods of evaluation.

So the generic ACRL information literacy approaches do recognize that students learn differently, and have specifically incorporated this into several areas.

What these general documents do not address are the discipline-specific competencies, including those for art students, architecture students, design students, etc. This I believe is our challenge in using the ACRL Information Literacy Standards for our students. This discipline-specific approach is starting to happen in psychology with the Society for the Teaching of Psychology, which has adapted a few of the ACRL outcomes for their document [<http://teachpsych.lemoyne.edu/teachpsych/div/ils.html>]. But I have not seen very much in this regard. [**CalPoly transparency**] The library at CalPoly San Luis Obispo has posted 10 information competencies for architecture [http://www.lib.calpoly.edu/infocomp/specific_ar.html]. They seem to me more “areas of the literature of architecture” than “information competencies,” although a start. Perhaps essential competencies for design students would include visual literacy and/or searching for images – not that design-oriented students have a monopoly on these competencies, but that they are critical to the discipline.

Competencies Specific to Architecture

Building Codes
 Building Products and Materials
 Census/Demographics
 Climatic Data
 Cost Estimating
 Environmental Impact Reports
 Formulas, Tables, Solutions
 Human Factors
 Map Interpretation
 GIS (Geographical Information Systems)
 Presentation Tools (graphs, etc.)
 Regulatory Information

Local, State, Federal Laws and Regulations
Certification
ADA Standards
Visual Information
Standards

Although I need to give this more thought, it would seem to me that one way to incorporate information literacy into the architecture curriculum is to relate it to the NAAB criteria for student performance, two of which are likely to open the door to library collaboration with faculty [#3 – Research Skills and #30 Program Preparation].

3. What strategies can we use to reach design students?

Or: Is there a unique brand of instruction for design students?

Do we tailor our instruction to the styles preferred by design students?? The answer is a firm “somewhat.” **[Sally Forth transparency]** We DO want to get their attention after all, as Sally Forth does for her business professionals in this recent cartoon. This does mean more however than using images, and more too, than a comic book simplicity, though that is what it feels like at times.

Switching gears a bit, we must also recognize that though I have been up to now talking about “design students” as one homogeneous group, they are in fact not, at least according to a couple of studies on learning styles.

You will find in your handout a short description of Kolb’s Learning Styles Inventory, which I would have loved to administer to you had we had more time! You will note in Table 1: “Learning Style preferences by discipline or profession” that architects and those in fine arts seem to have different learning styles [always recognizing that any one person in either group may have a style outside the predominant one for the group]. At any rate, one study found that practicing architects had the Accommodative style (a mix of active experimentation and concrete experience, defined as going from the general to the specific – the deductive thinker) whereas another study found artists to be Divergent (a combination of concrete experience and reflective observation, related to creativity).

As already mentioned, haptic, or bodily-kinesthetic learners, tune out visual instruction. A presentation with charts and graphs is little better for them than a lecture. Interestingly, the description of bodily-kinesthetic notes that “they are usually not attentive to visual or auditory instruction, but are eager to attack problems physically and with great activity.” Ahh hands-on training!!

Why not tailor our teaching completely to the visual, kinesthetic, interpersonal and intrapersonal – assuming that those are the four most prominent intelligences distributed amongst our students – and this is a BIG assumption?

Bottom line, our students need to be able to function in all learning environments. If our students are NOT verbal, they need practice in that skill. We should not ignore learning

approaches with which our students are not comfortable, we should instead merge those approaches with others so that they develop and become comfortable with multiple approaches. Certainly architecture students must not only be able to create a model [kinesthetic], they must also be able to present their project to a jury [verbal], create 3-D objects as well as draw [spatial], solve problems collaboratively [interpersonal] and set and pursue a goal [intrapersonal].

Likewise students in other disciplines need to be able to cope with multi-modal strategies both in learning and in using the library. And we are in the MTV age. Or Generation Y as ARLIS member Liz Ginno and others suggest in their online presentation at <http://www.library.csuhayward.edu/staff/ACRL/examples.htm>. Design for the web, even the textual component, relies more and more on the visual. Perhaps a future ARLIS will consider the value of text in our increasingly visual world.

Positing that visually and kinesthetic approaches must be included to reach design students, what techniques does this suggest?

Teaching Strategies

Here are some teaching strategies, many of which are described in detail in the book *Library Instruction for Students in Design Disciplines*. They are intended to be concept-based active learning strategies, as opposed to tool-based lecture approaches.

One strategy is to use props to create visual focus. For instance cartoons or book covers or even the visuals I have used in this presentation listing points. Props serve different functions. A bottle of coke [soda, pop] can focus discussion on controlled vocabulary versus keyword searching. A book jacket can kick off a conversation on how to find similar materials through the online catalog. Cartoons can be effective in introducing a bit a humor while backing up a point – as Sally Forth here hopefully did.

[chair transparency 1] Analogy making – I did bring along a sample product from the analogy project I assigned. This is the analogy. And here **[chair transparency 2]** is the visual she used to illustrate it. A description of how the project was set up, the reactions of the students, and the value I perceived in the project are all in the book!

Human Boolean – all stand with jeans and black shoes, jeans or black shoes. A kinetic exercise to illustrate a searching strategy.

Group projects incorporating in their product both text and image – e.g. create a web page for the most important library functions – visual and verbal!

Call number instruction as a kinetic activity

Encouraging browsing – a visual mode that can be effective in selecting relevant material [an info lit goal] Sarah Nolan's contribution

Tutorials – worksheets, online

But **enough**. Our moderator is going to bring out his prop – a hook!!! -- if I don't quit!

Thank you for your kind attention.