Investigating World Cultures: *A Systems Approach*

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Overview for Teachers and Mentors

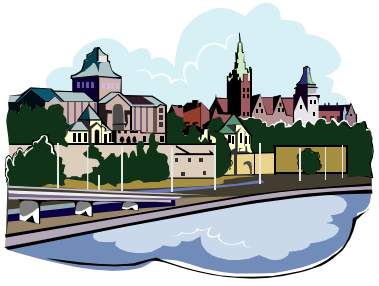
Why This Course?

Investigating World Cultures: A Systems Approach (IWC), introduces learners to the entities that have shaped all of human history, the entities that generate every day's most important news, the entities the actions and interactions of which will determine humankind's future. Those entities: Cultures.

Nothing humans seek to understand is more important than the phenomenon called "culture." And no phenomenon we seek to understand is more complex.

Traditional schooling brings to the study of cultures a crippling handicap—the so-called "core" curriculum. Cultures (and their linked societies) are *systems*—groupings of interrelated, interacting elements forming a whole greater than the sum of its parts. The core curriculum focuses learner attention on various parts of that whole but makes no formal provision for investigating their interrelationships and interactions.

Much of *Investigating World Cultures* is an adaptation of another course developed earlier, *Connections: Investigating Reality*. (That course has been revised and is now titled *Introduction to Systems*.) However, *IWC* excludes that course's investigations that focused on elements of reality not specifically concerned with cultures. *IWC* incorporates material from *Idea and Action in World Cultures*, a secondary textbook we wrote some years ago published by Prentice-Hall. In preparing that book, we had the assistance of a number of outstanding anthropologists who supplied materials based on their own fieldwork. The best of that material is included here.



The course is designed as a stand-alone introduction to systems, using world cultures as vehicles to introduce conceptual elements of General Systems Theory. If learners have previously used course materials from this website, various activities included here may duplicate previous experiences.

Unlike traditional studies of unfamiliar cultures, the main aim of *IWC* isn't to teach a body of quickly-forgotten information about various societies and cultures. Specific information learners might in the future need is easily accessed via computer or smartphone. The aim instead is to help learners assemble a permanently useful "master mental model" of cultures. This model, brought to bear on particular societies and their cultures, articulates the questions to be answered if that society is to be comprehensively described and analyzed. This analysis can be put to the useful work of clarifying learners' own cultural conditioning, their explorations of intercultural interactions, and the dynamics of cultural change.

Course Materials

Investigating World Cultures: A Systems Approach, unlike most textbooks and courses, isn't loaded with "read and remember" narrative. The ideas put forward are few and important, are interrelated, and together provide a framework to sort out and organize the universe of information with which learners must deal.

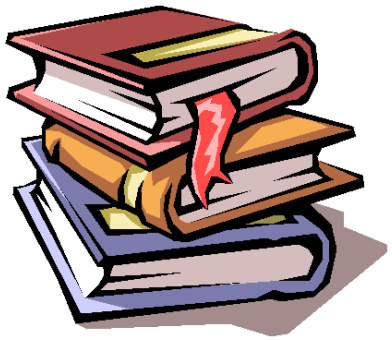
***Investigating World Cultures* is different from typical course materials in three ways:**

- First, **active learning**[1] is used almost exclusively in the activities ("Investigations"). Learners are pushed to generate their own answers to questions, and to generate the questions themselves. For a quick summary of the major characteristics of active learning, check out Slideshow #3, "Passive or Active Learning?" http://www.marionbrady.com/Slideshows.asp.

  The investigations in *IWC* are designed to be directed primarily by learners themselves, with little guidance from teacher or mentor. Learners are encouraged to bring their own ideas and skills to each investigation, and to take whatever time is necessary to complete each investigation, free of pressure to "cover the material."

- The second difference relates to the first. The learning resources are either **reality** itself, or, when the reality being studied is distant in space or time and not directly accessible, what's provided is minimally-mediated evidence from reality—**primary sources**.

  Most textbooks are compendiums of *conclusions*. The information has already been processed, leaving learners little to do but try to remember it. Complex, challenging thought processes aren't required. It's much like handing learners crossword puzzles with all the squares filled in. Conventional textbooks actually block higher-level cognitive processes.



[1] Active learning was termed "discovery" or "inquiry" learning in the past. The present technical term is "constructivism." It is also the basis for project-based learning.

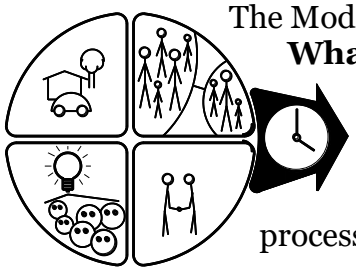
The study of reality and its residue in the form of primary sources (rather than pre-digested information in textbooks) develops information-processing and problem-solving skills.

The most important culture learners need to understand is their own. Investigations throughout *Investigating World Cultures* take advantage of the resources directly available to learners in their immediate, directly accessible surroundings.

Active learning—using critical thinking skills such as comparing, contrasting, analyzing, hypothesizing, generalizing, and so on—requires unprocessed data, either directly from reality or from primary sources. **The mode of learning and the information sources are interdependent.**

► One thing further is required—a way of generating questions that guide and focus investigation. This brings us to the third difference between *IWC* and conventional textbooks:

Learners learn to process information using a simple analytical tool we call the "Model," to find important systemic relationships. This model is based on General Systems Theory concepts. Everything studied becomes part of a single, logically integrated conceptual framework of knowledge.[1] The Model is introduced in Unit 2, "Systems and Societies."



The Model generates organizing questions to guide learner investigations**: What system is this? What are its most significant parts? How do those parts relate and interact? What's the system's environment? What forces drive it? How does it evolve or change over time?** These kinds of questions generate myriad subsidiary questions that drive the inquiry process.

For another look at this system-based Model, see the slideshow "Taming the Fire Hose," at http://www.marionbrady.com/SlideShows.asp.

Using Investigating World Cultures

Investigating World Cultures: A Systems Approach (*IWC*) is designed to organize approximately one year of academic work, linking and relating fields of study the traditional core curriculum treats as stand-alone courses.

As Albert Einstein pointed out, problems can't be solved using the same kind of thinking that created them, from which it follows that the activities may seem unorthodox. What's required is primarily teacher willingness to back away from the usual role of "expert." *IWC* is genuinely learner centered, so learners must be allowed to lead and be given time to do so without thought processes being short-circuited by teacher-supplied answers. Dialogue is essential. Learners must be encouraged to talk, argue, defend positions, struggle with issues that often have

[1] A survey of the most popular math, science, language arts, and social studies textbooks used by 8th graders yields nearly 1,500 main ideas "covered" in a single year. This, of course, is ridiculous.

no good or right answers. Reality as it presents itself "raw" is the richest possible learning resource or "textbook." The most productive role the teacher can play is that of "co-learner."

Procedures (A Summary)

1. Small group dialogue is most productive, not least because it allows participants to "think out loud" in a minimally threatening environment. It should be used routinely. (See later discussion.)
2. In the student materials, primary sources are the major focus of attention—phenomena to be analyzed and interpreted. They're enclosed or framed, e.g.:

http://unesdoc.unesco.org/images/0013/001398/139897eo.pdf

3. ***"Do this" instructions for learners are in bold-face italics.***
4. Learners should keep journals or portfolios on computers, in loose-leaf notebooks, or combinations of the two, with entries corresponding to the activities. (More on this on p. 7)
5. Teachers and mentors play a non-traditional role—not delivering information or serving as expert sources but as askers of occasional questions that prompt deeper learning about the task at hand.
6. Each unit ends with an investigation that applies the principle investigated in the unit to the learner's own immediate, "here and now" experience***. In a recent review of similar materials for world history, co-author Ignacio Carral said that he's had improved success with poorly-motivated learners by inverting the sequence, and beginning the unit with the present-day application before moving to the primary source materials.***

We favor heterogeneous classes with learners in the range of grades 7-10. However, experience and feedback from users tell us the materials can work with learners outside this range.

We believe in team teaching—two or more teachers with differing academic backgrounds, willing to discuss (model) their differences in productive ways in the presence of learners. *IWC* erases the arbitrary boundaries between fields of study, demonstrates their mutually supportive nature, and gives team members a shared conceptual foundation and "language of allusion."

In this era of rapid social change, mobility, and social instability, we think there's merit in multi-year assignments of teams to fixed groups of learners.

We recognize that some requirements of the conventional school world—seat time, detailed lesson plans, core curriculum standards, and the like—are at odds with student-centered learning. Active learning necessarily conflicts with conventional views of education proceeding linearly in quiet classrooms with students sitting, facing front, and listening carefully as teachers "deliver" information. Administrative understanding and support for teachers using *IWC* is therefore essential.

In our experience, so-called "direct" instruction and "scripted" presentations are a waste of time, even counterproductive. When no two learners are identical, no two learners learn in the same way, no two learners have the same past experiences, no two learners are in exactly the same situation, and no teacher or administrator knows what lies ahead for themselves, much less others, the drive to super-standardize instruction makes no sense except for the manufacturers of standardized tests.

Getting Started

We've included introductory materials in the first unit (Pages 2-8). If learners have previously used our materials, or are comfortable with learner-directed activity, those activities may be skipped. However, learners unfamiliar with active learning may have difficulty moving from traditional passive learning to the kinds of active learning required by our courses, including *IWC*. At the request of an educator piloting an earlier version of our materials, we developed these beginning investigations.

When teachers used earlier course materials that required kids to develop their own conclusions based on "unprocessed" data, some resisted. Those with good short-term memories, comfortable playing the "remember this" game, sometimes said, "Just tell me what you want me to know." On the other hand, learners turned off by traditional schooling often made the transition to activities like those in *IWC* happily.

To illustrate active learning, we show learners photographs of two suburban U.S. houses built in different decades and ask them to identify differences, speculate about the probable effects of those differences on neighboring, then consider the thought processes involved in making sense of real-world experience.

Small groups

Learners learn most thoroughly by way of extended, small-group dialogue. Careful guidance will, of course, sometimes be necessary. See https://www.teachervision.com/pro-dev/cooperative-learning/48531.html. Domination of a group by one or two members should be discouraged, and occasionally a suggestion may help a group past some kind of conceptual or operational roadblock.

Teachers or mentors must, of course, occasionally intervene to ensure that learners stay focused on the investigation in progress. Although active learning is stimulating and therefore ordinarily enjoyable, *IWC* classes mustn't be allowed to devolve into unstructured "do your own thing" sessions.

Investigative Procedures

To work with investigations, encourage each group to develop a systematic approach to problem solving, such as:

1. Define the task by identifying the main and subsidiary questions to be answered. As the work proceeds, the questions may change, and new questions may arise. Note that the Model, once developed, becomes the main source of general questions, although each investigation will require its own, more specific questions growing out of the Model.
2. Explore ways to find answers—direct observation, experiments, surveys, direct or written questions to authorities, and the like. Information from the library or Internet should be secondary.
3. Interpret the data and develop conclusions.
4. Prepare and present reports, tables, photos, diagrams, written statements of the problem, procedures and conclusions.

Note the applicability of computer skills to each step of the process, particularly Step 4. (Properly used, computers are helpful, but not essential.)

As learners become more skilled at project planning, the management process should be refined, especially for larger tasks, to include steps such as creating a schedule for each investigation, and conducting public (i.e. full classroom) project reviews, particularly at the end of investigations.

Journals (Portfolios)

Each learner maintains a personal journal to document investigation activities and conclusions. Using a standardized investigation procedure such as that described above will help. The journal may either be entirely hard copy, entirely electronic, or some combination of the two. Some information recorded in journals will, of course, be created by work groups, and some by each individual. Make sure enough individual work is done to build and evaluate learner skills.

The journal/portfolio will be a primary resource for evaluating learner performance, and for evaluating and enhancing skills, especially those used for

communicating. With proper guidance, the journal can become a way to improve writing skills.

Encourage use of photographs as part of journals. The ease with which digital photos are made and inserted in computer-based journals makes them a natural means of transmitting information. Creating and using other kinds of graphics should also be encouraged.

Project-Based Learning

What's being said about and done with project approaches are inherent in *IWC*, and should be central to education in general: (1) Emphasis on use of critical thinking skills (2) emphasis on collaboration, and (3) communicating plans, processes and outcomes effectively to others. Elements (1) and (2) grow rather naturally out of hands-on investigations and reality-based problem solving. Journals provide the core of element (3), but additional communications—presentations, dialogue, posters, student-made slideshows or videos, etc.—can and should grow out of Investigations.

Internet

The Internet is a learning resource, providing ready access to nearly unlimited information, but it often presents the same problem as conventional text and reference books. It offers pre-processed information and conclusions that limit learner thinking. The activities in *IWC* don't call for second-hand answers, but they may stimulate interests that learners pursue on their own.

Some Internet resources (e.g. Google Earth®), perhaps used in unconventional ways, may be used as the basis for investigations. But simply looking up answers to questions, then moving the information from the Internet (or a library book) to the learner's memory or journal is largely a waste of time and should be discouraged.

Lesson Planning

As noted earlier, there's a fundamental conflict between conventional bureaucratic expectations for teachers and the kind of active and project-based learning central to *Investigating World Cultures*. The crux of the matter: **If a concept or idea is truly important, but learners are struggling with it, there's no point in moving on until the idea is solidly grasped.**

Requiring teachers to plan lessons days or weeks in advance may give administrators or non-educators a sense of satisfaction that schooling is proceeding smoothly, but it's at odds with effective teaching and learning—a product of the traditional curriculum's lack of sound theory, organization, sense of relative importance, and reluctance to trust teacher and learner judgment.

Website Support

For many Investigations, additional information may eventually be available at our website: http://www.marionbrady.com/Cultures.asp. See the "Discussions

and User Feedback" box at the right of the webpage. Those using *IWC* are invited to contribute to this part of the program, sharing experiences and insights. Additional subject-area-related investigations are also on the website.

Right Here, Right Now

Within each unit of *Investigating World Cultures* is an investigation of the "Target Area." For most learners, this will be the school and its immediate environment. The "RHRN Project" symbol (left) is used to highlight investigations. Focusing on the target area has several advantages:

- It's accessible.
- It's sufficiently complex to challenge every learner.
- It's a system, with a full range of interacting components: Energy, raw materials, waste, teachers, learners, objectives, assumptions, money—an extensive list, with multiple interrelationships.
- Applying what's being learned to a real and immediate slice of reality emphasizes the relevance and usefulness of what's being learned.

Evaluating Learners

"How do I evaluate?" (Translated, the question usually means "How do I determine and defend the grades I assign?"). We believe grades are crude, even counterproductive tools deemed necessary because traditional schooling is so often seen by learners as irrelevant or boring, but the practice is too embedded in bureaucracy and public expectations to discard. It's also a source of teacher vulnerability, so much so that the fans of the "standards and accountability" reform effort have been able to use it to undermine public confidence in teachers and promote mass, standardized testing.

Thinking about using *Investigating Cultures*? Contact us at www.marionbrady.com. We have suggestions for pre- and post-evaluation. (Free)

The answer to the grading question is easy or difficult depending upon what one is trying to evaluate. Traditionally, grading has been relatively easy, and remains so for those who believe that educating is primarily a matter of delivering information. For these people, evaluation generally means, "How much do you remember?"

Recalling, of course, is just one of many thought processes. That recall (and low-level application) are the only processes that can be quantified with enough precision to allow machine scoring goes a long way toward explaining their extensive—even exclusive—use. When the list of thought processes needing to be evaluated is extended, their complexity makes clear the necessity for subjective judgment. This must be accepted as inevitable.

Investigating Cultures assumes small-group or teamwork as a means to the end of maximizing the benefits of dialogue and "thinking out loud." It also assumes

learners will keep journals, that instructional activities will involve a complex mix of thought processes, and that the teacher plays the role of co-learner and "guide on the side," rather than "sage on the stage." It also allows continuous monitoring opportunities—sufficient to eliminate the need for periodic testing. Minimizing teacher talk creates more time for listening to learner exchanges, for noting facial expressions, for interpreting body language, for reading student journals as they're being written, for evaluating arguments as they're being offered, for getting a feel for team dynamics, and so on, all in real time.

There's no substitute for the intrinsic satisfactions of learning via human interaction, and no substitute for continuously evaluating learner performance.

(For more on this subject, see *What's Worth Learning?*, p. 89ff. Free download: http://www.marionbrady.com/documents/WWL.pdf).

Forget periodic testing…unless custom or authority requires it. If such is the case, keep certain general principles in mind:

- Don't call the test "a test." Don't call it anything. Just treat it as yet another learning activity to be completed alone rather than with teammates.
- Keep the directions simple. Some dependence on verbal comprehension will be unavoidable, but even the most difficult task should be described in plain language.
- Make the task self-contained—not dependent on remembering an earlier activity.
- Never lose sight of the overarching instructional aim: making more sense of reality. What needs to be known is what the kid does when dealing with the unfamiliar. What questions is the learner asking? What thought processes are being used? What relationships noted, traced, explored?

For example:

Almost certainly, the neighborhood or area where you live is changing—gradually getting dirtier or cleaner, prettier or uglier, safer or more dangerous, etc. If you want to know why, what questions will you ask?

This is Monday. I'll ask for your lists of questions next Monday.

For example:

I'm giving each of you three pennies. Imagine yourself a thousand years from now, digging the pennies up. You know nothing at all about America, and don't understand any of the words on the pennies. Write as much as you can about the society that created them.

Think about this for a couple of days, then we'll talk about a due date for the assignment.

For example:

Choose one of the following policies and draw a flow chart identifying its probable or possible local consequences, the consequences of those consequences, and the consequences of *those* consequences:

- Every family must grow at least one quarter of the food they eat.
- Each person can generate no more than one pound of waste per week that can't be recycled.
- No able-bodied person can use an energy-consuming vehicle for a commute of less than a mile.

Complications

The assumption that the primary source of learning is a textbook is so firmly engrained in American education that change will be difficult for everyone involved—learners, parents, administrators and teachers.

If the learning mode is passive and based on memory, the teacher can be the fount of knowledge, the hero, the story teller, the guru. The learner is the absorber of knowledge, the disciple. These roles are satisfying to many teachers, and familiar to all learners. On the other hand, if the learning mode is investigation, roles are different. Instead of providing answers, the teacher must be a source of questions that push learners to create information themselves. If a teacher gets impatient and provides answers, that teacher short-circuits the investigative process.

As noted earlier, learners must also change, must take a more active part in the process. Both teacher and learner may resist moving to unfamiliar roles. The changes aren't easy, but they're worth the effort.

Finally

With *Introduction to Systems, Investigating American History, Investigating World History,* and *Investigating World Cultures*, we've tried to create programs that illustrate best practices, to raise awareness of the potential of General Systems Theory to organize information in ways that simplify teaching and learning, and to encourage examination and acceptance of the enormous potential of the approach to organizing information and sense-making that the young begin to use at birth and use in sophisticated ways long before kindergarten.

The world changes, necessitating curricular adaptation. We believe working classroom teachers, working together—not commercial publishers—are best positioned to continuously adapt and improve the general education curriculum. To that end, we'd like to see formal provision made for assuring an "open source" approach to the general education curriculum, for continuous, cross-cultural user dialogue.

(HLB) February 2017