Teaching Internet Comprehension to Adolescents (TICA)
What is Internet Reciprocal Teaching?

What is our pedagogical goal? We seek to increase the use of Internet reading comprehension strategies to improve: (a) reading (online and offline), (b) academic engagement, and (c) achievement among middle-school students at-risk of dropping out of school.

What are the essential components of Internet Reciprocal Teaching?
- ❖ Internet Reciprocal Teaching (IRT), incorporates the following essential components
  - ✓ Integration of all of the emerging components of Internet reading including
    - ▪ Internet communication among students
    - ▪ Use of the Internet for collecting and critically evaluating information
    - ▪ Use of the Internet for sharing and exchanging information
    - ▪ Comprehension of various texts and sources of information
  - ✓ Engages students in the full range of continuously evolving Internet experiences
  - ✓ Engages students in meaningful activities
  - ✓ Develops a democratic dialog and discussion
  - ✓ Provides a context for the emergence of strategies used in relation to specific content
  - ✓ Includes discussion of strategies during IRT instruction and beyond
  - ✓ Includes modeling (scaffolding) of strategies by teachers/researchers) and students
  - ✓ Recognizes students as informants (students share in instruction)
  - ✓ Includes activities that takes advantage of techniques for privileging struggling readers

What is the intent of Internet Reciprocal Teaching instruction?
The intended outcomes of Internet Reciprocal Teaching are based intentionally on Reciprocal Teaching (Palincsar & Brown, 1984). These include the ability of students to:
  - ✓ Develop strategic online reading
  - ✓ Develop awareness of specific skills needed for efficient online reading,
  - ✓ Model and scaffold strategies collaboratively toward increasing reading comprehension,
  - ✓ Apply interdependent and complementary strategies during authentic online reading experiences,
  - ✓ Facilitate collaborative dialogue to develop useful skills and awarenesses that transfer to new reading contexts

What categories of strategies are taught through Internet Reciprocal Teaching?
- ❖ IRT currently includes strategies in the following categories that map onto the five components defined by the new literacies of the Internet (Leu, Kinzer, Coiro, & Cammack, 2004) although others may emerge in our research:
  - ✓ Identifying important questions,
  - ✓ Locating information,
  - ✓ Critically evaluating information,
  - ✓ Synthesizing information collected from different resources
  - ✓ Communicating ideas to others in a variety of formats

What are the characteristics of online comprehension strategies?
- ❖ We utilize what Paris, Wasik, & Turner, 1991 coined as three types of knowledge in strategic reading comprehension:
  - ✓ Declarative knowledge (knowing what),
  - ✓ Procedural knowledge (knowing how),
  - ✓ Conditional knowledge (knowing when).
- ❖ The application of conditional knowledge to online reading is the ultimate goal of online reading comprehension,
- ❖ We recognize that students can't demonstrate conditional knowledge and be strategic unless the relevant declarative and procedural knowledge of a strategy has been developed.

What are the distinguishing characteristics of Internet Reciprocal Teaching?
- ❖ IRT dialogues are not scripted.
- ❖ Strategies introduced emerge from careful observations of students' particular strengths and weaknesses.
- ❖ Strategies introduced are flexible and adaptable.
- ❖ Strategies introduced can be implemented and adapted easily to a variety of content areas and reading context.

What activities work well in conjunction with Internet Reciprocal Teaching approaches?
- ❖ Telecollaborative projects (Leu, 2001; Harris & Jones, 1999).
  - ✓ Promote online collaboration and communication
  - ✓ Promotes reading and writing for authentic purposes
  - ✓ Promotes curriculum specific communication with classrooms locally and/or globally
    - o Aids in the development of strategic reading comprehension and the new literacies of the Internet.
    - o Prepares students for information processing demands and collaborative contexts that are critical to their success in the workplace.
    - o Invites students to develop new insights about the world around them.
    - o **Additional Resources** for Telecollaborative projects and examples of classroom collaborations http://ctell1.uconn.edu/Castek/InternetReciprocalTeaching.htm

What are the phases of Internet Reciprocal Teaching instruction?
- ❖ *Teacher led stage* – teachers model strategies and the discussion process
- ❖ *Collaborative stage* – teachers and students interact to guide and support strategy development
- ❖ *Reciprocal stage* – teacher invites students to apply strategies by facilitating student-led discussions during authentic reading events

Have Reciprocal Teaching approaches been shown to be effective?
- ❖ The effect size for Reciprocal Teaching is substantial (Rosenshine & Meister, 1994).
  - ✓ When standardized tests were used to assess comprehension, the median effect size, favoring Reciprocal Teaching, was .32
  - ✓ When experimenter-developed tests were used the median effect size was .88

Why might Reciprocal Teaching approaches be effective for increasing reading comprehension?
- ❖ Sharing strategies fosters confidence
- ❖ Context creates opportunities for students to demonstrate and discuss new strategies
- ❖ Discussion facilitates transfer to new reading contexts
- ❖ Approaches transform the classroom, promoting students as experts

Why use Reciprocal Teaching approaches for developing reading comprehension strategies specific to the Internet?

❖Students provide valuable insights about the process of reading for information online
❖Students assimilate new strategies by engaging in a cooperative, communicative dialogue
❖Explicit discussion promotes metacognition and transfer to new contexts
❖Strategies are shared cooperatively among group members, for example
  ✓ inferring what information might be linked to a site's menu bar,
  ✓ deciding when to access a hyper-link to locate more detailed information,
  ✓ setting a focused purpose for reading,
  ✓ learning how to synthesize information across several sites,
  ✓ developing criteria for critically evaluating which sources are viable

Theory and Research (Coiro & Dobler, under review)
  ❖ The Internet has been shown to require unique strategies when compared to printed texts
*In Practice (*Leu, Castek, Hartman, Coiro, Henry, Kulikowich, & Lyver, (2005)
  ❖ Sharing strategies fosters confidence and facilitates transfer to new reading contexts
  ❖ Teaching practices create opportunities to demonstrate & discuss Internet reading strategies
  ❖ Teaching practices transform the classroom, promoting students as experts

What are some important features of Internet texts that may be useful discussion points for strategic online reading comprehension?

❖Anyone can publish on the Internet; thus critical evaluation of information is vital.
❖Students follow different paths when reading online; no two readers will follow the same path.
❖Multimodal texts, common on the Internet, present information in formats that differ from traditional text and include sound, image, color, and animation.
❖Text features such as menu bars, titles, headings, and subheadings are not formatted using standard conventions and differ from site to site.

What classroom structures might be supportive for introducing Internet Reciprocal Teaching?

❖Demonstration, think-alouds, and scaffolded practice sessions
❖Small group interaction and discussion (to promote greater participation of all students)
❖Student-initiated strategies and dialogue while reading online
❖Shared thinking with students acting as models for one another

How might a teacher support strategic online reading comprehension during the teacher-led phase? (Cromley, 2005)

1. **Explain** how using a strategy will improve learning. Students need know not only how to **use** a strategy, but also **why** it is useful. If given a purpose, students are likely to put effort into learning it.
2. **Demonstrate** how and when to use a strategy. Demonstrate by "thinking out loud" while showing how the strategy can be used.
3. **Practice** using the strategy. Simply explaining does not mean students will learn **how** to do it. They are likely to benefit more when they actively using the strategy in meaningful ways.
4. **Support** students while they learn the strategy. Scaffolding may include hints, questions, reminders, explanations, or other supports.
5. **Explain** what was learned while reading and using a strategy. This shows that the strategy was valuable to learn because it helped build understanding of concepts.
6. **Feedback** can help students know whether they understand how to use the strategy effectively. Feedback should be specific.
7. **Debrief** with students about how useful the strategy was to them. This can help students make the connection between using the strategy and better comprehension.

How might I begin planning for IRT lessons?
- ❖ *Unit model* based on curriculum topics and state standards
  - 3-4 weeks on a topic (e.g., short story, poetry, response to literature, author study)
  - Plan IRT strategy sessions 2-3 times a week
  - Introduce mini-assessments at end of each cycle to determine whether students can apply the strategy effectively.
  - Begin cycle again with new curriculum topic
- ❖ *Strategy model* based on Internet introducing reading strategies that emerge from students and learning contexts
  - Twice a week a new strategy is introduced and practiced
  - The strategy may dovetail with the curriculum or stand alone
  - Strategies are introduced in a pre-planned sequence with time to explore implementation while reading or completing a project
  - Introduce mini-assessments at end of each cycle to determine whether students can apply the strategy effectively.
  - Begin cycle again with new curriculum topic
- ❖ *Tellecollaborative Project model* based on sharing and exchanging ideas collaboratively with another class
  - Through joining projects or developing projects, strategies needed for the exchange of ideas are emphasized
    - o Examples include: participation in a book club, collection of writings to be published on line, joint editing of a wiki, blogs or shared website sites to use for collecting and disseminating ideas.
- ❖ *Combination model* based on a combination of the above approaches
  - Implement a Unit Model for a portion of time, a Strategy Model for a portion of time, and a Tellecollaborative Model for a portion of time.
  - Strategies emerge according to the reading context and instructional situation

What principles of enactment will lead to success in implementation?
- ❖ Start simple, begin with what students are familiar with, such as email communication
- ❖ Carefully structure lessons at the beginning to provide adequate opportunities for modeling
- ❖ Allow strategies to emerge from student discussions but if they don't, demonstrate useful strategies that you feel are most important.
- ❖ Over time, fully utilize students as informants and teachers
  - ▪ Kids won't be fully competent at first, but over time, strategy discussions will become richer and more applicable for all involved.

What dynamics should I expect during instruction?
- ❖ Discussions vary based on whether all students are working together on one computer, or working on the same task, each on a separate computer.
  - o When students using their own laptops, more activity is possible, but less discussion and collaboration.
  - o When students share one computer, more discussion is possible, since all must negotiate moves, but less hands on experience is possible.

How might I define instructional objectives in planning Internet Reciprocal Teaching lessons?
- ❖ IRT instruction encompasses several distinct Internet reading contexts.
- ❖ Ideally, lessons move progressively from simpler straightforward Internet texts to those that are more complex.

❖ *Reading between web pages (a homepage and linked subpages)* Begin with an introduction of website text features such as menu bars, titles, headings and subheadings. Introduce the concept of linked pages, demonstrating how the reading context changes as various navigational paths are taken. Think aloud to help students to infer the nature of information linked to menus and embedded hyperlinks. Students will better understand the way online information is organized and will be more metacognitive about their decisions to navigate from one page to another.

❖ *Skimming and scanning (to locate specific information)* Through demonstration, discussion and guided navigation, students learn how to locate specific information presented on various webpages. Discussions are centered around the text features that lead a reader to locating a specific fact on a given webpage. Through collaboration, students will better understand that on the Internet, readers skim and scan strategically and check their facts by locating similar facts on reliable webpages. A discussion of credibility and reliability may provide a purpose for strategic skimming and scanning.

❖ *Using a search engine* Discussions of search engines and how they work introduce important new strategies for online reading comprehension. Begin a discussion of ways to narrow questions or topics down to key words and their synonyms. Introduce how to combine key words to narrow searches and locate specific information. Demonstrate procedures for reading search results strategically discussing instances initiating a new search is best.   These lessons will help students learn to make informed choices about what to read and how to navigate to reliable sites that contain information suited to their intended reading purpose.

❖ *Researching a topic on the Web* Introduce lessons that involve students in choosing a topic of interest, querying search engines, locating information relevant to their interests, and synthesizing information from multiple sources to come to new understandings. Guided demonstrations provide students with the ability to put into practice all of the strategies they have learned. Assignments that involve small group collaboration invite students to discuss the most effective strategies for finding accurate information.

❖ *Reading (and writing) Online Messages*- Introduce lessons that explore the many different comprehension strategies required to infer information presented in a variety of communication contexts: Instant Messages, email, blogs, wikis, and other ICTs. Each of these communication contexts requires unique inferential reasoning skills as compared to traditional texts. Lesson objectives could focus on how to construct clear messages appropriate for each context and purpose.

In each context three elements play an important role (Coiro & Dobler, under review):

(1) *inferential reasoning* - Traditional inferential reasoning skills during reading may become more complex and multidimensional within Internet reading contexts. For example, readers are continually required to make predictions about where each hyperlink they follow may lead. Readers must become skilled in evaluating whether a link or menu option's utility suits their purpose.

(2) *strategic knowledge* - Three types of strategic knowledge (Paris, Lipson, & Wixson, 1983; Paris, Wasik, & Turner, 1991) become important during reading comprehension: declarative knowledge (knowing what), procedural knowledge (knowing how), and conditional knowledge (knowing when). Proficient Internet readers rely on new sources of each type of knowledge unique to particular web-based reading contexts (e.g., search engines, blogs, websites, etc).

(3) *critical evaluation* - Critical evaluation of information on the Internet may be one of the greatest challenges to online reading comprehension because anyone may publish anything in this medium with or without the authority to do so. Readers must use a set of evaluation criteria related to the utility, validity, accuracy, currency and potential bias of information (Leu, Leu & Coiro, 2004) to guide them through this challenging process.

What instructional models provide authentic learning experiences compatible with IRT?

❖ As students progress in their ability to apply strategies in whole-class and small-group settings, learning tasks can be designed to promote independent application.

Example 1-IRT Used in Conjunction with Telecollaborative Projects: Students participate with partner classes on a telecollaborative project (Harris & Jones, 1999). In IRT groups, students develop questions, locate online resources, evaluate these sources, and synthesize information pertaining to the assignment. Students will communicate their findings to other classes through the use of email, a blog, wiki or discussion tool. The discussion tools facilitate the sharing of resources, questions, and reflections throughout the learning process. Dialoguing helps students share their thinking while also documenting their unfolding insights. Online discussions support students use of the strategies while also reinforcing procedures for locating information, analyzing information, synthesizing information, critically evaluating information, and communicating findings.

Example 2- IRT Used in Conjunction with Internet Workshop: Students complete a weeklong activity following an Internet workshop model (Leu, Leu & Coiro, 2004). In IRT groups, students develop questions, locate online resources, evaluate these sources, and synthesize information pertaining to the assignment. During this process, the group keeps notes in a journal reflecting on the content learned as well as their use of predicting, clarifying, questioning and summarizing strategies. At the end of the week, students meet back as a class to share their discoveries, questions, and journal entries orally. This discussion supports students use of IRT strategies while also reinforcing procedures for locating information, analyzing information, synthesizing information, critically evaluating information, and communicating findings.

What does IRT look like in action?
❖ Video clips and examples of student dialogues: http://ctell1.uconn.edu/IRA/InternetRT.htm
❖ Sample lesson, critical evaluation of websites: http://ctell1.uconn.edu/somers/quag.htm
❖ Interacting with online texts to enhance reading comprehension:
   http://ctell1.uconn.edu/castek/InternetReciprocalTeaching.htm

What are the potential benefits of IRT?
1. Students encourage one another and work in collaborative groups
2. Student pose questions of interest that promote independent inquiry
3. Students assist teachers by providing resources and generating new and useful strategies
4. The process of Internet Reciprocal Teaching creates authentic purposes for learning
5. Collaboration takes place between online partners to share and exchange information
6. Students engage in collaborative writing activities using blogs and wikis, and other ICTs
7. Students verbalize, generate, and model strategies that can be beneficially used in new contexts.
8. The activities may promote a more critical stance toward information.
9. The activities may promote reading comprehension in conventional printed texts.
10. The activities may increase engagement in reading and academic work in general.

How might student progress be documented?
Here are two options that may be useful for teaching purposes as well as our research project:

(1) *The Internet Reciprocal Teaching Observation Record* is a formative assessment for note taking. It is used to record an individual's reading processes and strategy application. Observation notes are collected to provide guidance and feedback to students to promote growth and improvement.

Internet Reciprocal Teaching Observation Record

Searching for Information				
Critical Evaluation				
Synthesis				
Communication				

(2) *The Internet Reciprocal Teaching Dialogue Rubric* is used in several ways. In the introductory phase of the group modeling process, it communicates expectations for the application of strategy use in the context of the group dialogue. The rubric is also used as a discussion tool to prompt reflection. Students are invited to suggest revisions to the rubric based on what they have understood to be important about implementing each strategy in an Internet context. The rubric documents students' progress over time during the course of a school year.

Strategy	Beginning 1	Developing 2	Accomplished 3	Exemplary 4
Searching for Information	Can conduct a simple, general search effectively. Reads search engine results from top to bottom.	Can conduct an advanced search on a general topic. Reads search engine results from top to bottom.	Can conduct an advanced search using Boolean operators to narrow results to sites that are the most relevant. Skims and scans search results to locate the most relevant sites.	Demonstrates strategies for adapting searches to various kinds of search engines.
Critical Evaluation	Examines the site for links that work and copy write dates. Looks for .edu sites versus .com sites to collect information.	Examines the about the author link to see who made the sites where information is collected.	Investigates the authors of sites used to collect information to determine how their bias or stance shapes their presentation of information.	Verifies information found on one site with other resources, strategically.

Strategy	Beginning 1	Developing 2	Accomplished 3	Exemplary 4
Synthesis	Collects information only from one site, perhaps from different sections.	Collects and compares information from two sites, drawing conclusions about information in an iterative manner.	Gathers relevant information from multiple sites, pinpointing the main ideas in an iterative manner.	Stays focused on reading goals while reading across sites while summarizing main ideas.
Communication	Communicates ideas using particular tools, but key information is missing (does not references sites used to collect info)	Communicates information using different kids of tools, but is not sensitive to audience and purpose.	Communicates clearly and concisely referring directly to sites by providing the URLs. Shows awareness of both audience and purpose.	Communicates with a voice of authority by summarizing and incorporating references appropriately.

Group Facilitation	Beginning 1	Developing 2	Accomplished 3	Exemplary 4
Group Leadership	Initiates one to two of the strategies in a loosely organized manner.	Provides some leadership in initiating three to four strategies	Leads effectively incorporating all four strategies into a dialogue.	Keeps group on task and skillfully and demonstrates strategies while balancing group participation.
Group Participation	Stays on task mostly listening but contributes little to the dialogue	Stays on task and actively participates in the dialogue.	Actively listens and builds responses around what others have contributed to the dialogue.	Participates in dialogue and actively responds to other students in a strategic manner.

Internet Reciprocal Teaching Cue Cards to Guide Student Discussions

Group Work
- Each group member will take the lead during the investigation
- The leader will provide ideas, think aloud, and guide the group for a time
- Leaders will rotate

Asking Important Questions And Setting a Purpose
- What would you like to find out about?J
- What categories of facts would you like to collect?
- What specific information will you look for?
- How many different sites will you visit?

Searching for Information
- What might be the best way to gather our information?J
- List search engines and key word searches would be best to use?J
- When results come up, how do you choose the best sites to go to?
- J If you don't find what you are looking for, what else will you try?
- Which kinds of sites are the best and most reliable ones to use?

Synthesizing
- Are there any concepts or ideas that we'd like to compile from different sites?J
- How do we going about deciding what information is most important?
- Where could you go to find additional information that would help you?

Communicating
- What have you learned?J
- What would you like to share?
- What beneficial strategies did you use?
- Which strategies didn't work well in this context?
- Was there anything your group discussed that helped you?
- Did any new insights emerge that you feel the group would benefit from?

Group Share
Show us something new you've discovered
- Share **what** was discovered (new information)
- Share briefly **how** it was discovered (the process)
- Share **any strategies** that were beneficial (from your discussion)
- Share **what to keep in mind** (in general) about reading on the Internet

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Appendix A

Internet Reciprocal Teaching

This summary is organized into the following sections: 1) an overview of our current thinking, 2) results from a recent pilot 3) lesson details/ implementation plan for the pilot, 4) a description of the variations tried in each class section during the pilot, 5) an analysis of student work collected and 6) new insights and new directions for future piloting and lesson development.

Overview: New thinking has pointed us in the direction of designing 5-6 Internet Reciprocal Teaching modules that would focus on strategies required for reading, comprehending and communicating on the Internet.

Preliminary modules may address strategies such as:
- a. conducting key word searches,
- b. locating specifically designated sites given pieces of information,
- c. reading search engine results,
- d. critically evaluating websites,
- e. synthesizing ideas from information found on multiple websites
- f. communicating ideas effectively using email/IM/blogs and other ICTs

A three-period lesson was developed for the module **Strategies for Critically Evaluating Websites** http://ctell1.uconn.edu/somers/quag.htm. The purpose of the pilot was to test delivery methods and evaluate which were good matches for the Internet Reciprocal Teaching framework. Materials that accompany this lesson (Internet resources and student worksheet) can be found at: http://ctell1.uconn.edu/somers/quag.htm, it's also attached here as Appendix B.

Pilot Overview: A pilot of Internet Reciprocal Teaching was implemented in five sections of 7th grade middle school social studies (four seventh grade classes and one eighth grade class). The lessons were designed to "tease out" strategies for determining if information found on websites is true, valid and reliable.

In each class, a different teaching approach was implemented. These approaches ranged from teacher directed to student centered (see section entitled lesson variations for more information on lesson implementation). Student work products were analyzed to determine which approach(s) yielded the richest strategy discussions and resulted in generating the greatest number of useful strategies for critical evaluation.

Background: The middle school class periods in our pilot school are 43 minutes long. The lessons took place in the media center where there is a computer lab, a discussion area, and a teacher projection station. We planned, delivered and taught the first lesson and the classroom teacher was encouraged to extended the lesson using the materials provided. We suggested implementing two follow-up lessons, however we were not able to observe the teacher's implementation of them.

Lesson Details/ Implementation: Each of the lessons had six distinct parts: 1) presentation of objectives: why critical evaluation is important to successful reading on the Internet and how it

connects to previous learning (2-3 minutes). 2) overview of the day's activities (3-5 minutes) 3) teacher modeling (6-8 minutes) 4) student investigation and discussion in small groups (**phase 1** on paper: <u>predicting</u> and <u>questioning</u> **phase 2** on the Internet <u>clarifying</u> and <u>summarizing</u>) 5) student presentations of strategies (20 minutes) 6) closure and summary of new ideas (3-5 minutes).

<u>Lesson Variations</u>: All lessons variations utilized: 1) an LCD projector and Internet connected demonstration computer 2) student computers with Internet connections (1 computer for each group with 4-5 students in each group), 3) a discussion area, and separate from the student computer stations.

Variation 1: No discussion or demonstration of strategies occurred before groups predicted and questioned (on paper). Groups investigated their designated websites but no demonstration was provided as to what should be examined or how. Discussion of strategies occurred after, <u>without</u> demonstration.

Variation 2: Explicit demonstration of two strategies (by teacher) occurred before students investigated their websites. During wrap-up and closure, two students groups demonstrated strategies they found helpful to critically evaluating websites.

Variation 3: Discussion and demonstration was lengthy and explicit (by teacher). Content for evaluation was presented as "Criteria to Keep in Mind" using bullet points on PowerPoint slides. Less time for student investigation, more time for student presentations, bigger student groups (4 groups presented).

Variation 4: Teacher demonstration was focused and brief (no whole group discussion). Less time was provided for students to ask questions before working independently. More time was available for student group work, and discussion. Explicit direction as to group roles (recorder, reporter, Internet navigator, discussion leader). One group demonstrated 1-2 useful strategies during wrap-up/closure.

Variation 5: Individual student demonstration took place during the modeling phase (students as experts). A brief discussion of strategies occurred as a whole group before breaking off into smaller groups. Ample time was given for student discussion leaving no time for student demonstrations. Closure and summary teacher directed.

<u>Analysis of Student Work</u>: Variation one (no demonstration) yielded the fewest high-level strategies for critical evaluation. Variation three (lengthy and explicit discussion and modeling by the teacher with limited student work time) yielded the second fewest high-level strategies. Variations two, four, and five resulted in students generating the most high-level strategies. Variation four, however was implemented with a class of eighth graders, many of whom were in the 7th grade science study last year and were familiar with the strategies. The classroom teacher was unfamiliar with critical evaluation on the Internet and felt that variation three (lengthy and explicit with PowerPoint slides) was the most effective. The UConn team felt that variation five was most effective. This may be due in part to "rehearsal time", working out the kinks and having practiced the method with four previous classes. Table 1.1 presents an overview of critical evaluation strategies generated in small groups.

Table 1.1 Students' Group Work -- Strategies for Critically Evaluating Websites

Student Generated Strategies for Critical Evaluation	Frequency

Look on the Internet for more information about the topic & check other websites to see if anyone else has heard of what you're looking at. Find a fact and check it on a different website.	14
Read the URL address (.com, .net, .edu, .gov etc.)	13
Read the site to see if it looks suspicious. See if the information is real and reasonable. Use common sense, read the site and put the pieces of the puzzle together	12
Look for when the information on the site was last updated (make sure it's recent 2000-2005).	12
Go to the "about us" section and see if the makers are reliable. Google the authors' names.	11
Contact the authors of the site and see if the company exists. If so, talk to a representative or someone there. Make sure there is an email address for a contact person.	11
Go to Google, type in the title of the website and see what comes up. See if the site is considered reliable.	9
Check all the site's links to see if they work and where they take you.	7
Investigate the "contact us" link.	5
Investigate the "company info" link.	5
Investigate the "more information" link.	4
Check the facts. Check research on the site (pictures and wording).	4
Investigate the "products and services" link.	3
Compare to information we know is reliable.	2
Look at the number and kind of advertisements on the site.	2
See if the website has a publisher.	2
Check out the reviews on the site.	2
See how much information the site has (look for sites with lots of information).	1
Do a mapquest to see if it's a real place.	1
Check list of hoax websites and see if it is listed there.	1
Google the address, see who else references the site.	1
If it's an .edu site, find the school to see if it's real.	1
Read the URL and see what words are in it (ex. Idiotica)	1
Look for phony information when following the links.	1
See if the site admits it's false.	1
Trim URL to see the source site.	1
Look at company reviews by customers.	1
Look at how many visitors the site has had (counter).	1
Look for how long the site has been on the Internet.	1
Look for realistic pictures with captions.	1
Read all information on the bottom of the page.	1
Look to see if the webpage has a copyright symbol.	1
Investigate website map of information.	1
Investigate the place using an atlas.	1
Find out where the authors of the site got their information.	1

New Ideas/New Directions: We're continuing with the development of Internet Reciprocal teaching modules. The module approach allows us to focus on strategy instruction and invites flexible application, independent of content being covered in the pilot classroom.

Group leaders: The groups in this pilot were assigned duties (similar to a Literature Circles Model) where each student took responsibility for a job. These duties included: discussion leader, Internet navigator, notetaker, and presenter.

We suggest training a population of students as "discussion leaders" each week. These leaders would be responsible for facilitating conversation, and keeping the group running smoothly. We'd like to move in the direction of shifting the group leader responsibility to each student (much like traditional Reciprocal Teaching). The group leader would lead others through predicting, questioning, clarifying and summarizing as text is explored and strategies are put to the test online. Focused training of students as discussion leaders would help facilitate purposeful conversation and strategy implementation.

Investigation of content: We suggest initially inviting student groups to read material offline (website printouts) as well as online (live Internet sites). We found the printouts useful for the **predicting** and **questioning** phases. It invited a close initial examination of information (without clicking around). We found the Internet connected computers were excellent for **clarifying** and **summarizing**. Once students went on to the Internet to had a set purpose for where they wanted to navigate and why.

Group sharing: We suggest the sharing of strategies by students happen spontaneously as new discoveries and important insights unfold. Having a formal student presentations each period takes time, and is not always purposeful. Instead, we suggest each group present once a week (limit one student presentation per period). The target group would be responsible for sharing AND demonstrating an important strategy that was useful in their work.

Strategies for Critically Evaluating Websites
http://ctell1.uconn.edu/somers/quag.htm

A **strategy** is course of action or systematic plan used to achieve a goal. Come up with as many strategies as you can for determining whether the two Internet sites you were assigned are valid and reliable sources of information for a school project.

Think about all the ways possible to verify the accuracy of your Internet sites. List your strategies as explicitly as possible in the table.

Directions
1. Examine your group's websites on paper FIRST.
2. Brainstorm together all strategies you could use to determine if your sites are valid and reliable (be as specific as possible).
3. List each of the strategies your group came up with.
4. Test the strategies you listed (one at a time).
5. Evaluate how effective each of your strategies were.
6. Provide comments to show what you tried and how you may have adjusted your strategy plan.
7. Present to the class TWO effective strategies for evaluation (show the class what was most helpful)
8. Present ONE ineffective strategy for evaluation (show what didn't work).

Strategy Description (Example)	Effective Yes/No	Comments	Present Strategy to class?
Go to the "about us" section of the webpage. Follow the links until we know the author of the site and what their "credentials" are.	No, this site did not have any information about who created the site.	Because there was no "about us" information, we decided to email the webmaster to find out who made the site and where the information on it came from.	No, we did not receive an email back, so we still don't know who the author is and where/he she got the information.

Appendix C – Critical Evaluation Webpage http://ctell1.uconn.edu/somers/quag.htm

Internet Reciprocal Teaching
Strategies for Critically Evaluating Websites

Come up with as many strategies as you can for determining whether the sites you were assigned are valid and reliable sources of information for a school project.

Download Student Worksheet

Think about all the ways possible to verify the accuracy of your Internet sites.
List your strategies, try them out, and present them to the class.

Predict: Do you think your site is a reliable source of information?

Question: How do you know that a website has accurate information?

Clarify: How do you go about checking on the validity of websites?

Summarize: Which strategies were most useful? Which were not?

1. Examine your group's websites on paper FIRST.

2. Brainstorm together all strategies you could use to determine if your sites are valid and reliable.

3. List each of the strategies your group came up with.

4. Test the strategies you listed (one at a time).

5. Evaluate how effective each of your strategies were.

6. Provide comments to show what you tried and how you may have adjusted your strategy plan.

7. Present to the class TWO effective strategies for evaluation (show what was most helpful).

8. Present ONE ineffective strategy for evaluation (show what didn't work well).

Who	Site 1	Site 2
Together as a Class	Dog Island	RYT Hospital's Clyven
Group 1	Golden Gate Tunnel	Facts about the Civil War
Group 2	Penguin Warehouse	Oaklahoma Association of Wine Producers
Group 3	Furnetics	New Hartford Minnesota
Group 4	Sellafield Zoo	Facts About Ancient China