



## **Meeting in the Middle: Ideas for Library Integration/ Research Instruction**

Today's digital immigrants and tomorrow's digital natives demand a new model for integrated library interaction(s). In this multi-disciplinary session you'll find out how a library liaison and faculty member practically merged their expertise to support personally-relevant performance/achievement (course objectives) and to foster a constructivist learning environment (program goals) – by design.



Thursday, May 24, 2007, 10:30 a.m. – 11:45 a.m., *Town Lake I*

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## Assignments & Academic Calendar

The course will follow the official UTD academic semester schedule at [www.utdallas.edu](http://www.utdallas.edu). Specific procedures and requirements for the content modules and/or projects are detailed in the course. The following outline is intended as a preliminary guide, and is subject to change as announced in the course.

| <i>Week</i> | <i>Topic(s)</i>                                  | <i>Open on</i> | <i>Due by</i> |
|-------------|--|----------------|---------------|
| 01          | Course Overview                                  | Jan 11         | Jan 17        |
| 02          | Conducting a Research Study                      | Jan 18         | Jan 24        |
| 03          | Selecting a Sample and Deciding on Methodology   | Jan 25         | Jan 31        |
| 04          | Choosing Instrumentation and Collecting Data     | Feb 1          | Feb 7         |
| 05          | Incorporating Naturalistic Methods               | Feb 8          | Feb 14        |
| 06          | Analyzing and Interpreting Data                  | Feb 15         | Feb 21        |
| 07          | Writing a Research Report                        | Feb 22         | Feb 28        |
| 08          | Solving Common Problems                          | Mar 1          | Mar 14        |
| 09          | Drawing Conclusions                              | Mar 15         | Mar 21        |
| 10          | Making Inferences and Supporting Generalizations | Mar 22         | Mar 28        |
| 11          | Presenting Research Reports                      | Mar 29         | Apr 4         |
| 12          | Reviewing Conference Presentations               | Apr 5          | Apr 11        |
| 13          | Publishing Research                              | Apr 12         | Apr 18        |
| 14          | Course Summary                                   | Apr 19         | Apr 25        |
| 15          | Final Evaluation                                 | Apr 26         | Apr 30        |

## Course Policies

|                            |   |
|----------------------------|---|
| <b>Grading (credit)</b>    | Required for course completion ( <i>Percentage of final course grade</i> )<br>10% Class Participation<br>10% Internal Review Board Forms (Projects)<br>10% Project Drafts (2, Projects)<br>15% Conference Presentation (Projects)<br>30% Research Report Paper (Projects)<br>10% Peer Reviews (Assignments)<br>10% Textbook/Reading Quizzes (Assessments)<br>05% Discussion Board Postings<br>00% Final Course Evaluation |
| <b>Make-up Exams</b>       | All quizzes must be completed within the week the lesson becomes available unless prior arrangements are made with the instructor.  |
| <b>Extra Credit</b>        | Not applicable.   |
| <b>Late Work</b>           | Typically, incomplete grades are not granted for MAT-SE online classes. Any assignments not submitted as required will be counted against a final grade and may result in a failing grade.<br><br>If you are unable to complete a task on or before the scheduled due date, it is your responsibility to inform the instructor immediately. Incomplete grades may seriously impact your program studies.                  |
| <b>Special Assignments</b> | None.   |

## Assignments & Academic Calendar

The course will follow the official UTD academic semester schedule at [www.utdallas.edu](http://www.utdallas.edu). Specific procedures and requirements for the content modules and/or projects are detailed in the course. The following outline is intended as a guide only and is subject to change as announced in the course.

| <i>Week</i> | <i>Topic(s)</i>   | <i>Open on</i> | <i>Due by</i> |
|-------------|---|----------------|---------------|
| 01          | Course Overview and Student Orientation                   | Aug 17         | Aug 24        |
| 02          | Learning about Learning - Literacy                        | Aug 24         | Aug 31        |
| 03          | Reviewing Literature and Understanding Research Design    | Aug 31         | Sept 7        |
| 04          | Classroom Research and Learning Theory                    | Sept 7         | Sept 14       |
| 05          | Learning Environments and Qualitative Data                | Sept 14        | Sept 21       |
| 06          | Gender Differences and Qualitative Analyses               | Sept 21        | Sept 28       |
| 07          | Misconceptions and Descriptive Research                   | Sept 28        | Oct 5         |
| 08          | Learning and Teaching Styles, and Correlational Research  | Oct 5          | Oct 12        |
| 09          | Learning through Hands-on and Causal-Comparative Research | Oct 12         | Oct 19        |
| 10          | Concept Mapping and Experimental Research                 | Oct 19         | Oct 26        |
| 11          | Transfer of Knowledge and Mixed Methods                   | Oct 26         | Nov 2         |
| 12          | Alternative Assessment and Research Ethics                | Nov 2          | Nov 9         |
| 13          | Position Presentation DUE and Research Study Proposal     | Nov 9          | Nov 16        |
| 14          | Final Paper DUE and Peer Review of Position Presentations | Nov 16         | Nov 23        |
| 15          | Research Study Proposal DUE and Course Summary            | Nov 28         | Nov 30        |

## Course Policies

|                            |  |
|----------------------------|--|
| <b>Grading (credit)</b>    | Required for course completion ( <i>Percentage of final course grade</i> )<br>10% Class Participation<br>25% Literature Review Paper<br>15% Position Presentation<br>10% Project Assignments<br>15% Research Paper Evaluations<br>10% Textbook/Reading Quizzes<br>10% Discussion Board Postings<br>05% Research Study Proposal<br>00% Final Course Evaluation  |
| <b>Make-up Exams</b>       | All quizzes must be completed within the week the lesson becomes available unless prior arrangements are made with the instructor.   |
| <b>Extra Credit</b>        | Not applicable.  |
| <b>Late Work</b>           | Typically, incomplete grades are not granted for MAT-SE online classes. Any assignments not submitted as required will be counted against a final grade and may result in a failing grade.<br><br>If you are unable to complete a task on or before the scheduled due date, it is your responsibility to inform the instructor immediately. Incomplete grades may seriously impact your program studies. |
| <b>Special Assignments</b> | None.  |

# Educom Review

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## Information Literacy as a Liberal Art

Enlightenment proposals for a new curriculum

By Jeremy J. Shapiro and Shelley K. Hughes

Sequence: Volume 31, Number 2








Release Date: March/April 1996

Excerpted from <http://www.educause.edu/pub/er/review/reviewarticles/31231.html>

Seven dimensions of literacy can be identified:

- **Tool literacy**, or the ability to understand and use the practical and conceptual tools of current information technology, including software, hardware and multimedia, that are relevant to education and the areas of work and professional life that the individual expects to inhabit.
- **Resource literacy**, or the ability to understand the form, format, location and access methods of information resources, especially daily expanding networked information resources.
- **Social-structural literacy**, or knowing that and how information is socially situated and produced.
- **Research literacy**, or the ability to understand and use the IT-based tools relevant to the work of today's researcher and scholar.
- **Publishing literacy**, or the ability to format and publish research and ideas electronically, in textual and multimedia forms (including via World Wide Web, electronic mail and distribution lists, and CD-ROMs), to introduce them into the electronic public realm and the electronic community of scholars.
- **Emerging technology literacy**, or the ability to ongoingly adapt to, understand, evaluate and make use of the continually emerging innovations in information technology so as not to be a prisoner of prior tools and resources, and to make intelligent decisions about the adoption of new ones.
- **Critical literacy**, or the ability to evaluate critically the intellectual, human and social strengths and weaknesses, potentials and limits, benefits and costs of information technologies.

## Timed Library Announcements

|          |   |
|----------|---|
| SCE 5305 | <p> <b>Wed, Aug 23, 2006 -- Lesson 2: A note from Stephanie!</b><br/>Check out the tutorials about using the UTD library Catalog. This tutorial will give you a good foundation for searching the materials available at UTD. Also, poke around the library's website (<a href="http://www.utdallas.edu/library">www.utdallas.edu/library</a>.) You will be pleased at all the information you have access to. When you are ready to search for your articles, check out the tutorial for searching ERIC. ERIC is the mothership for education articles and other research. I can also recommend other databases, depending on your topic. Have any questions? Let's talk!</p> <p> <b>Wed, Aug 30, 2006 -- Lesson 3: A note from Stephanie!</b><br/>Look the tutorial on scholarly vs. popular sources. I give some hints on finding your articles faster and further tips on identifying scholarly articles.</p> <p> <b>Wed, Sep 06, 2006 -- Lesson 4: A note from Stephanie!</b><br/>There are many ways to get to the assignment articles; one way is to search for the journal title (usually in italics) in the library's catalog. You can do that on the Library's main page with the library catalog quick search.</p> <p> <b>Wed, Oct 04, 2006 -- Lesson 8: A note from Stephanie!</b><br/>Some hints about keeping up with the current research. I find listservs very helpful in seeing what the trends are and finding out sources that other professionals use. In addition, some of the library databases allow you to create accounts and design searches that the database will run automatically and update you by e-mail of the results. Let me know if you are interested and I'll show you how to sign up.</p>   |
| SCE 5308 | <p> <b>Wed, Jan 17, 2007 -- Lesson 2: UTD Reference Librarian tips!</b><br/>Here are some suggestions for finding your instrument.</p> <ul style="list-style-type: none"> <li>• <i>Mental Measurement Yearbook</i>, listed in the databases from UTD, allows you to search for measurements by subject and other criteria.</li> <li>• Another place to try are the books "<i>Tests in Print</i>." The call number here at McDermott Library is BF176 .T47 1961 in the reference section. <i>Tests in Print</i> should be available in public libraries as well. <i>Tests in Print</i> lists all sorts of tests and where to get them.</li> <li>• Also take a peek at "<i>Using research instruments: a guide for researchers</i>" by David Wilkinson and Peter Birmingham. It's an e-book, so you can access the book electronically through the library catalog.</li> </ul> <p>If you have any questions, I'd be glad to help! ~ <i>Stephanie Isham</i></p> <p> <b>Wed, Feb 28, 2007 -- Lesson 8: UTD Reference Librarian tips!</b><br/>Suggestions for looking for statistics include:</p> <ul style="list-style-type: none"> <li>• Statistical Universe (UTD library database),</li> <li>• Fedstats for us government statistics (<a href="http://www.fedstats.gov">www.fedstats.gov</a>), or the</li> <li>• National Center for Education Statistics (<a href="http://nces.ed.gov">http://nces.ed.gov</a>).</li> </ul> <p>These are general ones, please let me know what types of statistics you are looking for and we can come up with additional sources. ~ <i>Stephanie Isham</i></p> <p> <b>Wed, Mar 28, 2007 -- Lesson 11: UTD Reference Librarian tips!</b><br/>To go along with Cynthia and Rebekah's great list, here are a few other suggestions.</p> <ul style="list-style-type: none"> <li>• Remember the journal's website.</li> <li>• Also, to look for journals to submit to look at <a href="http://ulrichsweb.com">ulrichsweb.com</a>. Ulrichsweb is a periodical directory. You can use it to search for journals that cover your field, find out if the journal is peer-reviewed or referred, see how long the journal has been published and the circulation numbers.</li> </ul> <p><i>Ulrichsweb.com</i> is one of McDermott Library's subscription databases so access it though the library's webpage.</p> <p>~ <i>Stephanie Isham</i></p> |

## SCE 5305



Thread:IDENTIFYING PRIMARY RESEARCH  
Post:[IDENTIFYING PRIMARY RESEARCH](#)  
Author:

Date:Monday, June 26, 2006  
Status:Published  
Overall rating: Not rated

You're right! This is the place to post your team's comments/suggestions for identifying primary research reports for Lesson 4.



Thread:IDENTIFYING PRIMARY RESEARCH  
Post:[Re: IDENTIFYING PRIMARY RESEARCH](#)  
Author:E

Date:Wednesday, September 20, 2006  
Status:Published  
Overall rating: Not rated

When I did my search in ERIC for my tentative topic I came across a lot of publications that were not classified as EJ but ED. Some of them were dissertations some were reports etc. If something has not been published in a journal how can we be sure if it is a valuable primary source?



Thread:IDENTIFYING PRIMARY RESEARCH  
Post:[Re: IDENTIFYING PRIMARY RESEARCH](#)  
Author:Isham, Stephanie

Date:Wednesday, September 20, 2006  
Status:Published  
Overall rating: Not rated

E,

EDs (ERIC Documents) can be primary sources but it is not guaranteed.

You can look at something not published in a journal and determine if it is original research, by using some of the same criteria that you would use to look at journal articles. Such as, looking for a works cited list. Look at the report's author and publisher. Are they reputable publisher? Have you seen the author's name before? Have other people cited his or her works? In this class you are evaluating articles, right? Use those same skills and strategies on the EDs.

It can be tricky to evaluate reports etc. and determine if they are high quality primary sources. If you find an ED you want to include in your literature review, you'll want to discuss it with Cynthia Ledbetter first.

Excellent Question,  
Stephanie



Thread:IDENTIFYING PRIMARY RESEARCH  
Post:[Re: IDENTIFYING PRIMARY RESEARCH](#)  
Author: J

Date:Sunday, October 8, 2006  
Status:Published  
Overall rating: Not rated

My librarian said that certain databases contain a place to check for primary research. Is this correct Stephanie?



Thread:IDENTIFYING PRIMARY RESEARCH  
Post:[Re: IDENTIFYING PRIMARY RESEARCH](#)  
Author:Isham, Stephanie

Date:Monday, October 9, 2006  
Status:Published  
Overall rating: Not rated

J,

That is true. Many of the databases allow you to limit to Scholarly/Peer-Reviewed journals. The limit is no guarantee that the article you pull up will be a primary source, but it will limit you to the journals that include primary sources. Always use the criteria Cynthia and I discuss to evaluate the materials you find.

Stephanie

## SCE 5308



Thread:new database  
Post:[new database](#)  
Author:Stephanie Isham

Date:Monday, January 8, 2007  
Status:Published  
Overall rating: Not rated

Hello!

Welcome to the newbies! Welcome back to the familiar names of last semester! The library got a new database over intersession you will want to know about. Education Abstracts has been replaced with Education Research Complete. It has most of the same titles as in Education Abstracts but with more full-text. Until we get the link placed on the database page, you can find Education Research Complete under the EBSCO databases link in the database "E" list.

Stephanie



Thread:Hi Stephanie  
Post:[Hi Stephanie](#)  
Author:D

Date:Sunday, April 1, 2007  
Status:Published  
Overall rating: Not rated

Hello Stephanie,

I haven't been to active with the research class thread. I've been using a few of your suggestions when searching for journals. It's been a great help. My literature review has been a continuous process. I covered the technical aspect of my paper last semester and this semester I am learning more about writing pedagogy for ESL students.

I wanted to say thanks for the information in journal searching for potential publishings. I hope to get into TESOL Quarterly. I recently found this journal and it is helping me organize my ideas and teaching practices.

I bit a large chunk off the cake when I picked my research question. Starting an online class from scratch is fun but bumpy road.

Have a good April

D



Thread:Hi Stephanie  
Post:[RE:Hi Stephanie](#)  
Author:Stephanie Isham

Date:Monday, April 2, 2007  
Status:Published  
Overall rating: Not rated

D,

Happy Easter! UTD and UTTC subscribe to TESOL Quarterly electronically from 1967-2001. If you need articles from later than 2001, use either Interlibrary Loan or DDoc and we will get copies for you.

Stephanie



Thread:Instruments for research  
Post:[Instruments for research](#)  
Author:K

Date:Saturday, January 20, 2007  
Status:Published  
Overall rating: Not rated

This is one of the parts of my research that scares me the most. I'm not familiar with instruments at all & our lesson this week said you could help us with that. My research is qualitative and I'm assessing learning styles vs. gender in the science classroom. I will be using 8th & 6th graders. Any help?

Thanks!  
K



Thread:Instruments for research  
Post:[RE:Instruments for research](#)  
Author:Stephanie Isham

Date:Saturday, January 20, 2007  
Status:Published  
Overall rating: Not rated

K,

This is where Mental Measurements yearbook and Tests in Print come in. They will help you find an instrument to use in your research. Both resources have subject listings so you can search for instruments to choose from. You can search by keyword in Mental Measurements yearbook. There may not be an instrument for your exact situation (it appears that there are a lot of variables) but there are instruments for assessing learning styles and I found one for assessing if students are learning science concepts in Mental Measurements Yearbook. Mental Measurements yearbook and tests in print also tell you where to get the instrument and how much it costs. So start searching there. Also look at the articles you are using. What instruments are they using? Can you use one of those?

Stephanie



Thread:Research question  
Post:[Research question](#)  
Author: J

Date:Sunday, March 25, 2007  
Status:Published  
Overall rating: Not rated

Stephanie -

I am analyzing my educational research concerning the effects of NCLB on Biology instruction, and was wondering if you could help me locate other research articles concerning whether the effects of educational reform is more pronounced in schools with high levels of poverty? Also, where would I need to look to locate recent newspaper articles concerning the teachers' efforts to convince the legislature to change the TAKS test here in Texas?

Thanks in advance for your reply,  
J :)



Thread:Research question  
Post:[RE:Research question](#)  
Author:Stephanie Isham

Date:Monday, March 26, 2007  
Status:Published  
Overall rating: Not rated

J,

For the research articles, try the education databases from the library's database page. The education databases are: ERIC, Education Research Complete, and Professional Development Collection. If you search the Education POWERSEARCH, you can search all these databases and Academic Search Premier ( a good multidisciplinary database) simultaneously. You can find the education databases here: <http://www.utdallas.edu/library/collections/education.htm>.

For the newspaper articles, I recommend 2 databases. The library subscribes to the Dallas Morning News online and that would be a good place to start. The other place is Lexis-Nexis. Lexis-Nexis contains newspaper articles from all over the world and you can search by state. That should get you newspapers from all of Texas, including Austin. You can get to Lexis-Nexis from the library database page. Once you are in Lexis-Nexis, here are the instructions to search for Texas newspapers:

- 1) Click on News on the left of the screen.
- 2) In the center of the screen under "News Category" select US NEWS
- 3) Under "News Source" select TEXAS NEWS SOURCES.
- 4) You're ready to search.

All the library databases are available at: <http://www.utdallas.edu/library/collections/dbases.htm>. You will need your UTD-ID and last name to access them from off campus.

Stephanie



Thread:new database  
Post:[RE:new database](#)  
Author:G

Date:Monday, January 22, 2007  
Status:Published  
Overall rating: Not rated

Stephanie,

At this point, I have identified an instrument in one of my pieces of literature that I think will provide much of the data that I need. However, this was an instrument that was constructed by some international researchers and it has been given a particular name. There are seven subtests in the instrument - of which I would only use 3 or four. Can you tell me, first, if it is possible to use such an instrument, and secondly where I should go first to access the full instrument. I would, of course, have to alter some of the actual questions in the surveys. This is the first I have heard of costs for using an instrument. What kind of expense should I anticipate in order to acquire pre-existing instruments? I am a bit nervous about this.

G



Thread:new database  
Post:[RE:RE:new database](#)  
Author:Stephanie Isham

Date:Tuesday, January 23, 2007  
Status:Published  
Overall rating: Not rated

G,

Congratulations on finding an instrument! Check with Dr. Ledbetter to see if it is OK, to modify it. She's the expert on this.

You will have to contact the publisher of the instrument to access the full instrument. Do you have a publisher? Mental Measurements Yearbook and Tests in Print can give you that information if necessary.

The price varies depending on an instrument and what's included. Helping various people, I've seen prices from \$15 to over \$100. The publisher will let you know and prices are also listed in (you guessed it!) Mental Measurements Yearbook and Tests in Print.

Stephanie

 **Projects****PROJECT DESCRIPTIONS****THE PAPER**

[Click here to review the project details](#) (Package File)

A formal review of literature:

1. to present, persuasively, an analysis of **previously published** research,
2. to investigate a subject about which you are **passionate** - and will research independently.

**THE PRESENTATION**

[Click here to review the project details](#) (Package File)

A persuasive electronic presentation:

1. to **summarize** your literature review paper, and
2. to **persuade** the readers that you have a great idea for new research!

**THE PROPOSAL**

[Click here to review the project details](#) (Package File)

A tentative description of a research study:

- to **outline** an action research study *that you will conduct in the near future*,
- to **contribute** to the body of science education research literature.

**PROJECT DEVELOPMENT (weekly tasks)****01 Review Requirements**

Before you actually start working on your projects, take this time to carefully **review the requirements** for the Literature Review and the Position Presentation. Don't panic! *If you were prepared to complete them now, you would not be taking this course probably... okay?* Click on the links above to get an idea of what you'll need to and need to do to successfully complete them!

Also, find out which **Workgroup** teams you are assigned to for the subsequent **Project** tasks. When you click on the link in the course menu you'll see your Cloud Type and Endangered Bird teams!

**Workgroup Interactions...**

## CLOUD TYPES

As you get started with your research, it's often helpful to bounce ideas around or brainstorm options with your peers. Sharing comments and questions will help 'ground' your work in practical ways. We've set up these teams to give you a chance to interact, just as if you met at a worktable in the library to continue discussions after class! When you do have a question, don't hesitate to add it to the Science Education Reference discussion board so we learn from each other's experiences.



## 02 Application Tutorial(s)

You'll utilize the UTD Digital Library resources extensively in this course - and throughout your thesis work. So, this week, take a **virtual tour** of the McDermott library! Use the convenient link in the course menu to get started...*Be sure to meet the Science Education Reference Librarian (who may very well become your 'new best friend')!*

Check out the online 'Help' files and various tutorials to be sure that you know how to access the databases and other resources available to you. *We'll go over the nitty-gritty details in the Lessons, but make sure that you are comfortable with the general interface(s) at this point.* To complete this exercise, within your group, discuss the differences that you noticed between the UTD Digital Library and the Internet in general. Someone needs to post a brief summary of your team's observations to the appropriate **Reference Desk Discussion**.



## 03 Literature Search

By now you have an idea of how to evaluate a research report or paper. This week, as a team,

1. **Decide** on a search strategy to find a good research article that contrasts the lecture mode of teaching with hands-on teaching and student achievement.
2. **Try** your strategy in at least 3 different search engines, like
  - *Google Scholar* online at <http://scholar.google.com/>
  - *JSTOR* in the UTTC Digital Library
  - *Education POWERSEARCH* in the UTD Digital Library, or
  - *Academic Search Premier* in the UTTC and UTD Digital Libraries!
3. **Compare** your results and brainstorm ways that your team could improve the search strategy to return additional - or better - results.

Finally, a member who hasn't posted for your group yet needs to share your team's new insights in the appropriate **Reference Desk Discussion** thread!



## 04 Theoretical Goals

Lesson 04 focused on setting research goals. Think about how learning theory might inform the research goals you'll set based on a topic that you might choose to investigate. For this project task...

1. Take a look at **your individual top 3 teaching concerns** that are posted in the Café 05 'Seat Yourself' forum.
2. **Generate a list of 5 keywords** that you might search for to address a particular aspect of your concerns. *Ask your Librarian help refine your terms if needed.*
3. Run several searches individually, then discuss the **identifiers of primary research** that you noticed within your group members' results.

Any teammate who hasn't posted to the **Reference Desk Discussion** needs to add a brief summary of how this exercise helped your group improve their research techniques!



## 05 Tentative Topic and Reference Section Draft

At this point, you've probably discovered an area of research that interests you. For this task, in a Microsoft Word document:

- share your **tentative topic choice** for your literature review with your workgroup peers;
- include a very brief **description of the context** and
- proper APA citations for **six primary articles** pertaining to your tentative area of interest under a section heading of "References".

*These articles will provide the basis of next week's assignment to be turned in for individualized feedback from the instructor... so, be sure to help each other double-check style and formatting!*



## 06 Practical Tools - INDIVIDUAL ASSIGNMENT

Referring back to last week's entry about your tentative topic choice... *What kinds of tools might you use to find out about your topic - and then to find the answers to the key questions that will arise?* Think about qualitative and quantitative research. *What are some problems that these tools can address? Why would you want to do a specific type of research to tackle these issues? How do you know you have chosen the correct tool with which to do your research?*

All that said and Lesson 06 completed, **DOWNLOAD THE FILE** (LiteratureSummary.doc) and **COMPLETE THE FORM** to **summarize your literature review and each of the six (you may have more) more primary source research reports that you have identified.**

Be sure to save your work, upload the modified file, and submit this assignment to finish.

>> [View/Complete Assignment: 06 Practical Tools - INDIVIDUAL ASSIGNMENT](#)

## Workgroup Interactions...



Now that you've gotten off to a good start, your research will be even stronger as you develop it further with a new group of peers. Sharing comments and questions will help your work 'take flight' in creative ways. Again, we've set up these teams to give you a chance to interact, just as if you met at a worktable in the library to continue discussions after class! When you do have a question, don't hesitate to add it to the Science Education Reference discussion board so we learn from each other's experiences.

### 07 Tentative Research Question



By now, you probably have identified 'holes' in the existing body of literature pertaining to your area of interest. For this task, formulate a **tentative research question** that could be answered by your own action research. *Present your draft research question to your workgroup team. Be sure to include specific research goals.*

Using your team's **workgroup discussion** area, provide constructive feedback to each of your new workgroup peers based on your common experience in reviewing research to date.

### 08 Purpose Section



At this point you are ready to compose the purpose of your paper. Specifically, for this task:

- Add a section called "**Purpose**" before the "Reference" section in your Microsoft Word document. It should explain why you have chosen this topic and why it is an important topic to review.
- *Remember that you must include a minimum of 10 citations in your review of literature!* Ask your teammates to **comment on your current keyword list**, likely revised since Lesson 05!

Someone needs to post a brief summary of how those keyword lists have changed generally as your research topics have developed over time and with new experience and knowledge. Check out the ideas in the relevant area of the **Reference Desk Discussion**.

### 09 Review of Literature Draft



At this point you are ready to draft the "Review of Literature" section based on the papers you've selected for your "References". For this task:

- Add a section heading titled "**Review of Literature**" to your Microsoft Word document between the "Purpose" and "References" sections.
- Using the information tabulated in your 'LiteratureSummary.doc', **draft the body of your paper** that describes the references you have chosen to examine.

This section ought to read as a coherent whole that supports your stated "Purpose" and includes at least 10 citations in proper APA style. *Seek advice from your team members and peers to be sure you're making your point!*

### 10 Introduction and Conclusion Sections



Ready or not, it's time to introduce and summarize your literature review. Now, add the following draft sections to your Microsoft Word document:

1. "**Introduction**" section  
*Recall that this 'sets the stage' for your paper. Here's where you draw the reader in through your area of interest. This should flow into the "Purpose".*
2. "**Conclusion**" section  
*Recall that this is what gets you 'off the stage' and convinces the reader that further research on your topic is warranted.*

*See what your colleagues have to say about your tone and approach.*



### **11 Position Presentation Draft - INDIVIDUAL ASSIGNMENT**

Research isn't valuable until it's been shared. Use the final draft of your Literature Review paper to develop your draft Position presentation.

For Lesson 11:

- **Download** the attached Position PowerPoint Template (SCE5305\_presentation.ppt) to your system.
- **Customize it** to suit your tentative Position Presentation.

Rename the file if you like, save it, upload it, and submit it for comments.

>> [View/Complete Assignment: 11 Position Presentation Draft - INDIVIDUAL ASSIGNMENT](#)



### **12 Abstract**

*Okay, we're almost there...* For this task:

1. Add a section heading titled "**Abstract**" to the start of your Microsoft Word document.
2. Compose and add a draft abstract for your paper for review.



### **13 Final Presentation DUE - INDIVIDUAL ASSIGNMENT**

There are *two important steps* to this assignment! BOTH are required for course completion and full project credit...

1. **Upload** your FINAL Position Presentation (\*.PPT) as a PowerPoint file using this assignment option.
2. **Attach** the same FINAL Position Presentation file (\*.PPT) to your reply for the 'Position Presentation (and Peer Review)' thread in the 'Research Practice' forum under the 'Discussions' button.

Good job ~ *you ought to have some time to 'polish' your Literature Review paper now!* Be sure to check for general comments from the Reference Librarian on the **Reference Desk Discussion** that might improve your overall research skills!

>> [View/Complete Assignment: 13 Final Presentation DUE - INDIVIDUAL ASSIGNMENT](#)



### **14 Final Paper DUE - INDIVIDUAL ASSIGNMENT**

This is the moment we've been working toward...

For Lesson 14, **upload your FINAL Literature Review paper** as a single Microsoft Word document (\*.doc) for grading.

>> [View/Complete Assignment: 14 Final Paper DUE - INDIVIDUAL ASSIGNMENT](#)



### **15 Research Study Proposal DUE - INDIVIDUAL ASSIGNMENT**

Again, there are two important steps to this assignment! BOTH are required for course completion and full project credit...

1. Download and complete the attached Research Study Proposal form (ResearchStudyProposal.DOC).
2. Upload your FINAL Research Study Proposal (\*.DOC) as a Microsoft Word file using this assignment option.

Good job ~ *you'll be using this to guide your progress throughout SCE 5308!* This document is protected, meaning that you can only fill in the form fields. Use the tab key to move between fields and enter your own text into the placeholder comments.

>> [View/Complete Assignment: 15 Research Study Proposal DUE - INDIVIDUAL ASSIGNMENT](#)

# **A Comparison of Onsite and Online Student Achievement, Performance, and Perceptions of an Introductory Science Education Research Course**

Rebekah K. Nix and Cynthia E. Ledbetter, The University of Texas at Dallas

## Conclusions

The overall results of this study suggest that the new program strand for completely online and asynchronous delivery was developed with the same learning objectives as the traditional campus-based program, thus extending the options available to students seeking a graduate degree in science education without compromising the academic rigor of the coursework. Given the homogeneity of the sample in terms of student background and personality profiles, this study indicates that both the online and onsite students achieved, performed, and perceived the coursework in similar ways.

Although not the focus of this study, it is interesting to note that in examining similarities and differences in students' performance, the Mann-Whitney Test was sensitive enough to illuminate one set of relationships between the onsite and online students. Assuming equal variances, there was no significant difference ( $U = 0.183$ ,  $U = 0.980$ ,  $p < 0.05$ ,  $N = 20$  for midterm and final, respectively) between the midterm and final scores for each section. The means of the midterm and final were 8.73 and 7.27 with standard deviations of 0.786 and 1.009, respectively, for the 11 onsite students. The onsite students performed better on their midterm assignment than they did on the final project. For the online students, the means of the midterm and final were 8.22 and 7.33 with standard deviations of 0.667 and 1.00, respectively for the 9 students. This indicates that there were individual student differences in overall achievement, but that for the sections as a whole, the classes were more similar than different. However, when comparing each section's midterm to final grades, the Wilcoxon Signed Ranks Test showed no significant differences in mid-term and final for either the onsite or online students ( $T = 0.063$ ,  $p < 0.05$ ,  $N = 9$  online;  $T = 0.006$ ,  $p < 0.05$ ,  $N = 11$  onsite). This ability to explore the data at various grain sizes may be supported by qualitative data also to allow for further study in support of these general findings reported at the class level.

“What is important in so many reports attacking distance education is the presumption that traditional education (usually poorly defined) is the norm against which comparison must be made and that traditional education is a laudable norm” (Meyer, 2002, pp. 17-18). However, as Phipps and Merisotis (1999) state, “technology is not nearly as important as other factors, such as learning tasks, learner characteristics, student motivation, and the instructor” (p. 8).

This study is as important for instructors as it is for administrators. To realize a shift in teaching practice, “As science educators, we need to be able to support our personal efforts and teachers' efforts...” by “...trying to model such practices in our own classrooms” (Moscovici, 1999, ¶ 19). Good teaching is good teaching, regardless of the delivery mechanisms employed. “The focus of much discussion in distance education is on geographical distance and how it may be bridged. However, this focus obscures the more fundamental issue of educational distance. Educational distance includes cognitive distance, role distance and access distance. This form of distance is as potent in the classroom environment as it is in a virtual learning environment” (Kennedy, 2002, p. 409). By considering differences among students and including student perceptions in the instructional and research designs, a teaching experience and learning

environment as rich as that of the onsite class was developed in the completely online and asynchronous class.

As science, technology, education, and educational research continue to advance, it will be important to carefully check the items used to evaluate onsite and online courses and programs. For example, since this study was implemented, some of the resource literacy attitude statements may already be somewhat obsolete. The next iteration of the introductory science education research course will likely include updated items similar to those shown in Table 1 where the differences are indicated by italicized text.

Table 1. A Comparison of Initial and Future Resource Literacy Attitude Items

| Fall 2006 Items |  | Updated Attitude Items |  |
|-----------------|--|------------------------|--|
| 1.              | As for me, understanding <i>why</i> information is <i>collected in a central place</i> is important. | 1.                     | As for me, understanding <i>how</i> information is <i>organized</i> is important.                              |
| 2.              | As for me, knowing how information <i>materials are loaned</i> and shared is important.              | 2.                     | As for me, knowing how <i>published</i> information is <i>stored, made available,</i> and shared is important. |
| 3.              | As for me, understanding the <i>kinds of personnel who staff a library</i> is important.             | 3.                     | As for me, understanding the <i>training and skills of library staff</i> is important.                         |
| 4.              | As for me, knowing how library staff assist my students with their information needs is important.   | 4.                     | As for me, knowing how library staff <i>can</i> assist my students with their information needs is important.  |
| 5.              | As for my students, an awareness of different library resources and tools is important.              | 5.                     | As for my students, an awareness of different library resources and tools is important.                        |

The results of this study show that the online students achieved, performed, and perceived their coursework as did the onsite students in the Fall 2006 semester. As shown in Table 2, comparing these new results to the available end-of-course evaluations collected over time suggests that both the online (by inference) and onsite sections follow in the tradition of the program. In fact, qualitative data support the notion that the instructional design attributes developed for the online section may have improved the course delivery for the onsite section.

Table 2. Mean and Standard Deviation for Onsite Classes on the End-of-Course Evaluation

| Year | N  | Mean | Standard Deviation |
|------|----|------|--------------------|
| 2001 | 5  | 4.78 | 0.400              |
| 2002 | 9  | 4.36 | 0.590              |
| 2003 | 8  | 4.09 | 1.042              |
| 2004 | 14 | 4.04 | 0.873              |
| 2006 | 11 | 4.65 | 0.523              |

Note. A lecturer assisted with instruction for the 2004 onsite (501) class. The 2004 lecturer was the instructor for the 2005 onsite (501) class as the regular instructor was released to develop the online (OT1) coursework.

$p < 0.05$

Given this solid base of research evidence, the authors purport that the new program strand sustained the same learning objectives as the traditional campus-based program that has been offered for over 30 years. A rigorous instructional and research design framework supports the decision to extend the options available to students seeking a graduate degree in science education through this completely online and asynchronous delivery alternative.

## *Part One of a Series Focusing on the Library...*

### **The UTTC Digital Library and your Campus Library Contacts -**

#### **Understanding your Information Resources**

UTTC academic students have access to the [UT TeleCampus Digital Library](#). Via this resource, students have access to 25,000 unique journal titles with full text and more than 45,000 full text e-books. But sometimes students (and faculty) may need a resource not found within the UTTC Digital Library, so UTTC Student and Faculty Services established options for supporting information needs, including D-Doc and a distance education contact at each institution's library system.

Students may access the [D-Doc program](#), a resource similar to the inter-library loan system that delivers journals and books from collections worldwide via email or post while students are enrolled with UTTC. A student simply completes the necessary form stating his or her request and, often in 24 – 48 hours he or she receives the journal article. (Books will take longer.) The form will allow a date priority as part of the request to assist librarians in the network with understanding student needs.

The [UT Campus Distance Education \(DE\) Librarian contact](#) is essential as neither our digital librarian, nor our students or faculty can know with complete certainty the institution's individual policies and access procedures as well as the full breadth and scope of resources the way a local librarian can. The DE librarian contact is the expert at each institution for assisting UTTC students and faculty with the information needs related to that institution's resources.

The DE Librarian is called upon to help in three basic contexts.

- First, the DE librarian will strive to meet student needs by serving as a detailed subject specialist assisting with reference and research questions.
- Second, the DE librarian also works to meet the needs of faculty in the instances where the UTTC digital librarian cannot.
- And third, the DE librarian can apprise faculty of services available to create and maintain an Electronic Reserved Reading List (called eRes) to link students to scanned copies of documents within each institutions collection.



The DE librarian can also serve faculty and students by serving as active library resource within an online course. This new concept allows faculty to incorporate information literacy assignments and activities into their online UTTC course via an embedded librarian who actively participate in course discussions, via the discussion board, and can help guide students through appropriate search processes. Examples of this concept at work can be found at UT Dallas and UT Arlington in these courses:

- UTA – Content Area Reading and Writing – Dr. Nancy Hadaway
- UTA – Multicultural Literature for Children – Dr. Jeanine Hirtle
- UTD – and UT Dallas’ SCE 5305: Evaluating Research in Science Education - Dr. Cynthia Ledbetter, assisted by Dr. Rebekah Nix.

Librarians and Faculty who have participated in this process indicate they found the quality of the student’s research questions and skills improved. Stephanie Isham, a reference librarian at UT Dallas says she is getting more traffic... about search strategies, than ever before... beyond the basics such as “how do I find articles,” or “do we have this journal?”

Dr. Nix, UT Dallas, reported that she is thrilled with the success of the online pilot. Incorporating information literacy activities into online learning at the point of need is “catapulting our students ahead of what is happening everywhere” with regard to information literacy.

These successes, combined with the recent national attention on the importance of preparing our students to be the leaders of a twenty-first century workforce, underscore the value and importance of assuring our students leave our institutions with the information skills they need.

Integrating information literacy activities into online courses is a process that identifies the points in the course curriculum when a student has an information need, and incorporates a library activity at that juncture to increase overall information literacy. Students use the various Web-based tools at their disposal and can contrast scholarly research with more general Web-based searches via engines such as Google, allowing them to discern the differences in outcomes and the appropriate times to use one source over another.

To enable UT library staff at the various UT institutions to best prepare for these emerging needs, UTTC Student and Faculty Services hosts specialized videoconferences for the UT System Distance Education Library Taskforce specifically for information and idea sharing.

Faculty or librarians interested in knowing more about incorporating information literacy activities into existing course curriculums should contact the UTTC Librarian, [Terry Barksdale](#). The next library videoconference is scheduled for November 17<sup>th</sup>.

**uttc.org > UT4Me Fall 2006 UTTC Community**