

Meeting in the Middle

IOL 2007
Nix & Barksdale



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Welcome to IOL 2007

Have these 'starters' up as the audience settles in...

See how many they could answer; move to formal opening

Class starters from SCE 5308, various lessons - Fifer, F. & Ledbetter, C. (SCE Associates)
REPRINTED WITH PERMISSION.

Meeting in the Middle: Ideas for library integration/research instruction

Program abstract:

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.

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Presentation Objectives

- To **talk** about the difference between instruction and integration (**focus**)
- To **share** insights on how faculty/staff perspectives changed (**design**)
- To **show** examples of how course design supported the new model (**implementation**)
- To **report** on student outcomes and faculty/staff satisfaction (**evaluation**)

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review objectives

1. To talk about the difference between instruction and integration (**focus**)
2. To share insights on how faculty/staff perspectives changed (**design**)
3. To how examples of how course design supported the new model (**implementation**)
4. To report on student outcomes and faculty/staff satisfaction (**evaluation**)

We hope to share lots of new information and some of our experience to catalyze ideas for your own practice.

It might be good to see what interests have assembled here today... I know we all wear many hats, so who is attending as an instructor? a developer? a librarian? Other?

We'll probably have plenty of time for more interactive Q&A later, but please feel free to interject any questions/comments as we move along...

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briefly introduce project players

As part of a new program design, a UT-TeleCampus support specialist teamed with a UT-component course developer to embed critical library resources into online coursework. Our challenge was to find ways for faculty and staff to 'meet in the middle' to better support their common students.

1. Started with UT-TeleCampus staff
 - course development
 - student services
2. Ended with MAT-SE Online! students
 - small cohorts (20-24 typically)
 - evenly split between onsite and online programs

The 'middle-people' are still as different as wildly imaginable!

1. Terry Barksdale
 - UTTC Digital Librarian
 - Brooke's mom who loves to walk Town Lake in Austin
2. Stephanie Isham
 - UTD Library Liaison
 - Excellent knitter who loves to visit the quiet lakes in the northeast
3. Rebekah Nix
 - TDC Senior Lecturer and MAT-SE Online! Project Director
 - Sundance's mom who loves small lakes and mountain streams
4. Cynthia Ledbetter
 - SME Associate Professor and former Department Chair
 - Pepper's mom who loves to dive any and everywhere!

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briefly describe program design

- 36-hour degree, thesis-only option
- completely online, completely asynchronous

We're developing 3 course sequences for UTTC:

1. Educational Research
2. Integrated Science
3. Critical Issues/Special Topics

Other elective courses in various fields of interest have been deployed already or are in development now!

Today, we'll take a look at the first two core research courses: SCE 5305 and SCE 5308.

> Handout: topic lists from course syllabi

- Includes pretty basic content
- Incorporates action research to support constructivist pedagogy

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Set the stage with our ultimate goal

Two intense light bulbs went off during our process that made all the difference:

1. Nix shared her passion for **learning environments** research, and
2. Barksdale shared her passion for **lifelong literacy**.

As we merged our experience and expertise to enrich the coursework, library instruction was strategically integrated into the coursework.

As you can see from this cartoon used in Lesson 02 of SCE5305, the information revolution has created an urgent need for information literacy.

Cartoon from SCE5305, 02 Learning About Learning - 'Megabyte Information Processing Center' placard being placed over the original 'Library' sign. Harris, S. (1991). *Can't you guys read? Cartoons on academia*. New Brunswick, NJ: Rutgers University Press. REPRINTED WITH PERMISSION.

Library instruction has pushed beyond the basics of simply finding and accessing information. Distance education has pulled higher education into a new realm. Successful graduates must be prepared to judge and to apply an overwhelming amount of information in useful and meaningful ways. Thus, to help our students change their practices, as educators we had to change our process. Luckily, teachers are typically lifelong learners.

It used to be okay – and enough – to just have a tour of the library facilities during student orientation. But timing is still everything! Huge advances in digital libraries have empowered us to teach these research courses in a new way... online!

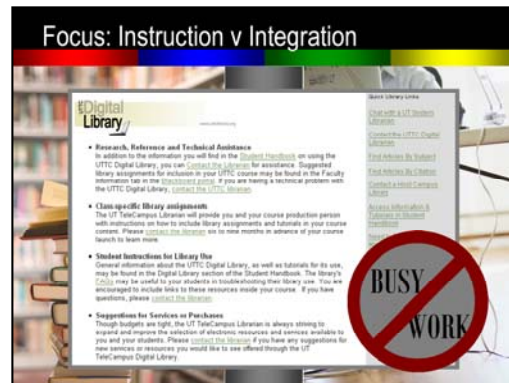
I see DE as a way to promote better teaching in HE. All of the pedagogical aspects included in the PGP support my personal teaching theory of constructivism. It's been exciting to carry over my research on learning environments into this new realm. Echoing Terry's thoughts, my focus therefore is on 5 key factors that define a constructivist learning environment: Personal Relevance, Uncertainty, Critical Voice, Shared Control, and Student Negotiation. We'll look at these aspects specifically later, so keep them in mind as we explore the course in general.

<click>

"To teach someone any subject adequately, *the subject must be embedded in all the elements that give it meaning*. People must have a way to relate to the subject in terms of what is personally important" (Caine & Caine, 1994, p. 64). Referring "to the social, physical, psychological, and pedagogical contexts in which learning occurs and which affect student achievement and attitudes" (Fraser, 1998a, p. 3), the field of learning environment research is broad in terms of both substance and methods. Research and evaluation in science education continue to rely heavily on the assessment of academic achievement and other valued learning outcomes. However, such results do not yield a complete picture of the educational process. Therefore, to fully understand the implications of educational reform, it is critical to investigate the determinants and effects of all aspects of the classroom- and school-level learning environments (Nix, 2002).

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Focus the content

Library instruction can no longer be the busywork it once was, nor is the one-shot field trip to the library where the librarian attempts to cram everything the students need to know into a one hour session sufficient.

What are the chances that the information will be retained, ready to use at the moment it is needed?

Many faculty have seen from unsatisfactory resources obtained through Google, the answer is “not likely”

One of the first conversations I had with Dr. Nix, at the first IOL conference, as a matter of fact, gave me the first glimmer of recognition of Info Lit's import.

Info Lit is not a new idea – searches of library literature show that it has been a topic of serious discussion for well over ten years. Only in the last few years, however, has info lit been appearing in scholarly journals outside the library realm.

In that early conversation with Rebekah, she immediately recognized the connection between what needed to be accomplished in the program she was designing and my nascent explanation of how IL might fit.

It was at that point that I knew I needed to learn more. I knew that Info Lit made sense, but it was such a departure from standard operating procedure for me as an academic librarian... Where should I begin? I didn't have to wait long. A subsequent IOL session featuring Librarians from UT Austin gave direction for the next step. I arranged a meeting for Nix and me to meet with Michele Ostrow, a UT Austin Instruction Librarian who had spoken eloquently at IOL. While the meeting was fruitful in many ways, one message stuck with me:

Any library activity assigned in a course is useless if it is not relevant at the moment of delivery to the learning occurring in the course.

“Make it relevant!”, became my new mantra.

This mantra was reinforced when I attended the Texas Immersion experience in Summer 2006. There, along with Librarians from around the globe, national Info Lit experts offered a week-long intensive IL program.

Of all the reading, constructivist learning experiences, and thought-provoking discussion during that week, the most valuable ideas for me can be distilled into three points:

- There are many facets to literacy in the 21st Century
- There is a tendency in my profession to want to share everything we know about finding and evaluating information (how else can we possibly hope to save democracy except by instilling a devotion to lifelong learning???)
- And, here is the most important thing I realized in my immersion training – Faculty are necessarily protective of their time with their students. If I want to really make inroads into their curriculum, and foster a recognition of the importance of IL among faculty, I must be mindful of that fact.

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Educate/inspire the audience!

> Handout: article citation and excerpts

Dede, C. (in press). Technology-based and Distance Learning Strategies. The Condition of Education in Rural Schools. Washington, DC: Center for Rural Education, U. S. Department of Education:

...A crucial challenge for U.S. education is to focus students and communities on 21st century skills and knowledge for the emerging global, knowledge-based economy. Pg 1
developing human skills for economic prosperity and political participation, increasing educational opportunity for disenfranchised learners, and preparing students for a technology-intensive workplace. Pg 7

Envisioning the future of virtual learning... requires synthesizing all these factors – organizational, demographic, and technological – into ways sophisticated computers and telecommunications now enable reinventing teaching, learning, and schooling. Pg 8

...education leaders are often wary of distance learning because they fear these programs will deliver “one size fits all” curricula ... Fortunately, emerging approaches to distance learning address...

[this] concern. Pg 14

advances in computers and telecommunications are simultaneously altering the knowledge and skills society seeks from graduates of schools, the pedagogies skilled teachers use to attain these educational outcomes, and the learning styles, strengths, and preferences of today's students. Pg17

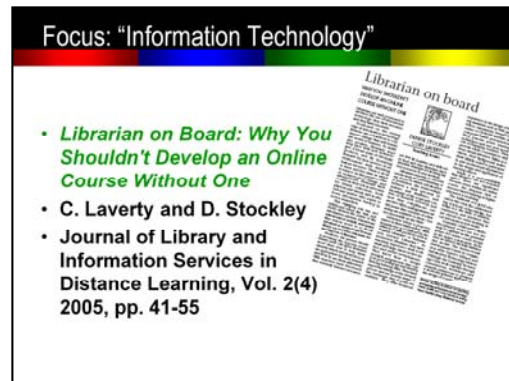
reports on the global, knowledge-based economy and the “flat” world document that tomorrow's workers must be prepared to shift jobs and careers more frequently, to be flexible and adaptable in acquiring job skills, and to integrate and focus a changing mix of job and education knowledge on business processes and problems (Friedman, 2005). The worker of the 21st century must have science and mathematics skills, creativity, fluency in information and communication technologies, and the ability to solve complex problems (Business-Higher Education Forum, 2005). Pg 34

Growing proportions of the nation's labor force are engaged in jobs that emphasize expert thinking or complex communication—tasks that computers cannot do. Pg 35

... meet the crucial challenge of preparing students and teachers with 21st century skills and knowledge for the emerging global, knowledge-based economy.

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Educate/inspire the audience!

> Handout: article citation and excerpts

Librarian on Board: Why You Shouldn't Develop an Online Course Without One: November 3, 2003 : p. 7 Cory Laverty and Denise Stockley

Journal of Library and Information Services in Distance Learning, Vol. 2(4) 2005, pp. 41-55, doi: 10.1300/J192v02n04_04

Technology is changing the face of teaching and learning around the world.

[Distance Education and its adoption of new technologies] have the potential to foster intensive learning through analysis, synthesis, problem solving, and decision-making.

[Distance Education provides a] new model that explores how students might engage with their teacher, with one another, and with learning resources in a rich and complex networked environment, posing a new challenge in higher education.

The hallmark of a good education was once the understanding of a body of knowledge, but today it is the skills of analysis, evaluation, and synthesis that are critical for sense-making in our information-rich world. Well-educated people are those who have learned how to learn. They have gone beyond rote learning, or learning that simply responds to assessment requirements. They know how knowledge is organized, how to find and analyze information both new and old, and how to use it in such a way as to create and disseminate knowledge.

...a curriculum that integrates discipline competence with an information literacy component encourages analysis, synthesis, and evaluation of information and abilities that are essential to deep learning.

Since knowledge is outdated so quickly, it is now more useful for education to elevate the goal of information literacy over retention of facts... Formal education has become a lifelong pursuit by necessity. [Emphasis is on] concepts and methodology over facts to foster research skills over taking notes...

Networking among diverse partners during the creation of online courses has demonstrated the potential to support entirely new instructional designs.

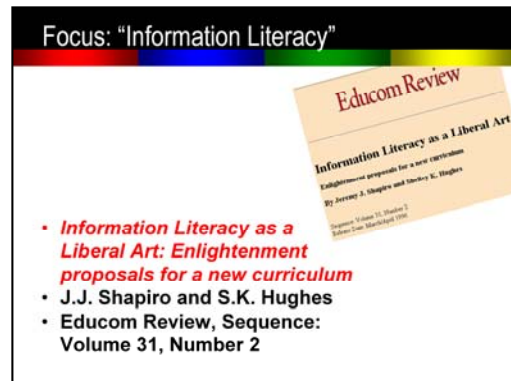
Student investigation is placed at the heart of learning in the vision of undergraduate education described by the Boyer Commission.

...the basic concept of literacy has been expanded to include the emerging form of literacies more suitable for complex information environments. Moreover, most of the definitions of information Literacy have been in terms of [the] information literate user rather than information literacy itself. Definitions...are numerous...but... do not vary on the type of core skills comprising the constructs of various thinking- and sense-making processes.

...IL is, in fact, the fusing of various concepts, the integration of library literacy, digital literacy, information ethics, critical thinking, and communication skills.

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Educate/inspire the audience!

> Handout: article citation and excerpts

Information Literacy as a Liberal Art: Enlightenment proposals for a new curriculum, By Jeremy J. Shapiro and Shelley K. Hughes, Educom Review, Sequence: Volume 31, Number 2, <http://www.educause.edu/pub/er/review/reviewarticles/31231.html>.

Information and computer literacy, in the conventional sense, are functionally valuable technical skills. But information literacy should in fact be conceived more broadly as a new liberal art that extends from knowing how to use computers and access information to critical reflection on the nature of information itself, its technical infrastructure, and its social, cultural and even philosophical context and impact - as essential to the mental framework of the educated information-age citizen as the trivium of basic liberal arts (grammar, logic and rhetoric) was to the educated person in medieval society.

As more and more information is in computerized form, even elementary general literacy will be partially defined by an information-technology component.

If the information society is to be a free and humane one - especially if we share the Enlightenment goals of abolishing unnecessary inequality and creating a society of liberty - then let us take up the challenge of Condorcet's vision. Let us contribute to liberty through advancing citizens' knowledge, through democratizing education. Let us design a comprehensive, multi-dimensional and thoughtful information literacy curriculum.

> Handout: definitions of the 7 types of literacy

Dimensions of Literacy

1. Tool Literacy
2. Resource Literacy
3. Social-Structural Literacy
4. Research Literacy
5. Publishing Literacy
6. Emerging Technology Literacy
7. Critical Literacy

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Paint the big picture

Before we get into specific ideas and examples from the research courses, we want to show you how those different dimensions of literacy guided the entire program design. Clearly this aspect is important in terms of the research methods we used to identify and examine student outcomes and satisfaction that we'll report later.

What we didn't realize at the time was how critical this conceptual framework was to merging our 4 very different perspectives and to defining the individual roles that led to successful course delivery.

- Mention literacy matrix

<click>

- Describe how this manifested in that pivotal round-table discussion...

The UTD library liaison and professor were looking at each other within the 'traditional' library and classroom of higher education. Terry and Rebekah had a line-of-sight that came from distance education angle. Our challenge was to modify this 3-D zone to define single points within the course.

<click to next slide>

The following photo shows how our Eugene McDermott Library – like most others – literally is separated from the content areas! We encouraged our students to walk across the campus to leverage library resources, but until the digital library became a truly valuable research tool for me as faculty, I hadn't been back since getting my master's degree (and that only entailed 2 required visits)! An unlikely string of events led me to find out that we had a departmental liaison, Stephanie. She's been at UTD about as long as I have now (over 7 yrs). Anyway, we met and I discovered that she enthusiastically shared a passion for educating lifelong learners. The great thing is that she's really brilliant at it!

Our library resources advance almost every month. And I mean not just in the volume of information, but also in terms of tools and techniques. You probably know that depending on vendors for e-journals and other resources adds another dimension of change. There's no way that Cynthia and/or I could a, get up to speed on the new technologies, b. keep up with those new technologies, or c. even begin to think of ways to improve already full lessons with those new technologies! But that's exactly what we wanted (needed) to do to maintain the level of quality we demanded for our teaching practice and the minimum skills base we expected of our MAT candidates.

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<click to text>

As we examined our perceptions of the perspectives that brought various stakeholders to the table in this endeavor, we recognized that we had one primary objective in common – taking a student centered approach. So while we each came from our own distinct areas with our own preconceived notions of what was necessary for our definition of success, by bearing this primary objective in mind, we were able to find a way to address our own concerns and meet course goals by always focusing on what the student needed at that moment to know, and how we could put to tools in front of him so that he could construct his own learning experience.

And that was part of the beauty of our collaboration. This new way of thinking brought about by my new mantra, “Make it relevant!”, helped keep me focused on finding places within the course where students already had an information need, a place where they may have trouble or make a bad choice, where an exercise using library resources could help guide them toward better performance in the larger task.

So this was the shift in thinking that occurred for me (staff perspective). And I had a new confidence that I would be welcomed by faculty when using this new approach, because I wasn’t adding busy work, I was helping to improve the quality of their students’ learning experiences, and ultimately, the quality of the work they turned in to the faculty.

Another aspect of our collaboration that created a win/win/win/win was the fact that Rebekah was my ace in the hole. She is a well-respected, dedicated instructor and designer. AND she saw the value. She was excited about the possibilities of what true integration would bring, and she could help to bridge the gap between my library-speak, and the faculty’s instructor-speak. She was able to assuage any concerns on the part of the instructor of which I might be unaware.

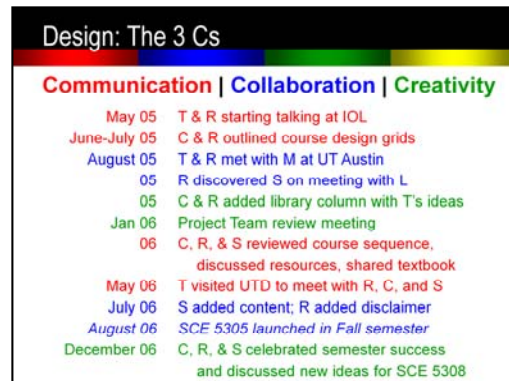
And this is a critical point here – the faculty perspective on library instruction – its value, its place in the curriculum, the gap between what they hope students in their class know already and what they really know, that sense of time restrictions – all of these things can and do effect what faculty think they want from a librarian. Some real changes in faculty thinking are necessary to create an environment where a collaboration like this one can succeed. By keeping the focus on learning objectives, and what students need to complete those objectives successfully, the collaboration effort is more likely to succeed.

From the administrators perspective, when they recognize the trend in accrediting agencies to add literacy competencies to accrediting standards and objectives, they are enthusiastic about leveraging the new technologies to support and to demonstrate these learning outcomes.

And, we, like our students, are seeking ways to **keep up** with our own professional development in this rapidly-changing environment.

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Terry mentioned those 3 Rs; now I'm going to give you my 3 Cs for Design success: Communication, Collaboration, and Creativity! Remember those!

The reason I really wanted to present our ideas today is that - as simple as they seem - this was not a quick-turn edit. Merging our 4 perspectives and modifying our coursework took time, lots of time. And it took a lot of communication, collaboration and creativity from each of us. We're hoping that you will take some of these bigger ideas and specific examples back to your team.

This timeline summarizes the key milestones in our process... Designers should overlay the UTTC new course development schedule.

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Design: Ideas + Examples

- Course ideas
 - Roles (Instructor/Student)
 - Design (Announcements)
 - Discussion board (forum)
 - Course menu (external link)
- Library examples
 - Web resources (UTTC/UTD)
 - Student inquiries (email/chat)
 - Learning Resources (organization)
 - Future trends!

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To that end, we will present concrete examples and feedback from a 2-course science education research sequence to demonstrate the key aspects and critical results of this innovative approach.

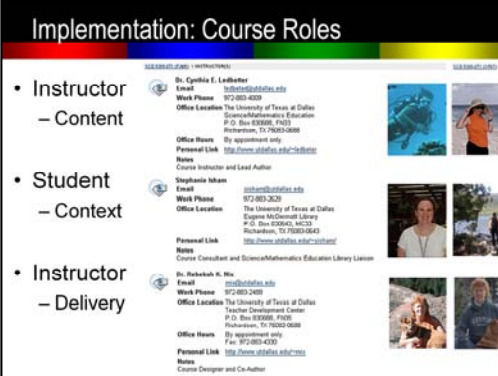
Guided by focused literacy characteristics, we will share ground-breaking techniques for using library resources to stimulate student performance and motivate student achievement in an introductory research course.

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Implementation: Course Roles

- **Instructor – Content**
Dr. Cynthia E. Ledbetter
Email: ledbetter@utdallas.edu
Work Phone: 972-883-4039
Office Location: The University of Texas at Dallas
School of Mathematics Education
P.O. Box 133088, 75213
Richardson, TX 75083-0888
Office Hours: By appointment only
Personal Link: <http://www.utdallas.edu/~ledbetter>
Notes: Course Instructor and Lead Author
- **Student – Context**
Stephanie Adams
Email: adams@utdallas.edu
Work Phone: 972-883-3620
Office Location: The University of Texas at Dallas
Eugene McDermott Library
P.O. Box 133088, 75213
Richardson, TX 75083-0888
Personal Link: <http://www.utdallas.edu/~adams>
Notes: Course Consultant and School Mathematics Education Library Liaison
- **Instructor – Delivery**
Dr. Richard K. Nix
Email: nix@utdallas.edu
Work Phone: 972-883-2480
Office Location: The University of Texas at Dallas
Teacher Development Center
P.O. Box 133088, 75213
Richardson, TX 75083-0888
Office Hours: By appointment only
Personal Link: <http://www.utdallas.edu/~nix>
Notes: Course Designer and Co-Author



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What level of access does each of the Blackboard roles give a user?

- **Instructor:** has access to all areas of the Control Panel; usually reserved for the person developing, teaching, or facilitating the course.
- **Student:** can view all materials the Instructor makes available on the course Web site, but has no access to the Control Panel. “Student” is the default role for anyone you add to your course.
- **Teacher’s Assistant:** has access to almost all functions in the Control Panel, including the Grade Book.
- Revised on 11/21/2006 ITS Academic Technology Services
- **Course Builder:** can use most areas of the Control Panel, but does not have access to student grades.
- **Grader:** has access to all functions in the Assessment area, as well as course Announcements, the Course Calendar, and the Digital Drop Box.
- **Guest:** has viewing access to student areas of the course but may not participate in any way.

Even if the course is unavailable to students, the course **Instructor**, **Teacher’s Assistant**, and **Course Builder** can still access it.

Stephanie’s assigned course role as a ‘student’ enabled her:

1. to explore the course interface (including the portal announcements and support resources),
2. to review the lessons as presented to the distant learners, and most importantly,
3. to moderate her own discussion board forum and to participate in other discussions.

It also removed burdensome issues regarding:

1. course production (i.e., content edits),
2. FERPA (i.e., gradebook details), and
3. instructional responsibility (i.e., final authority).

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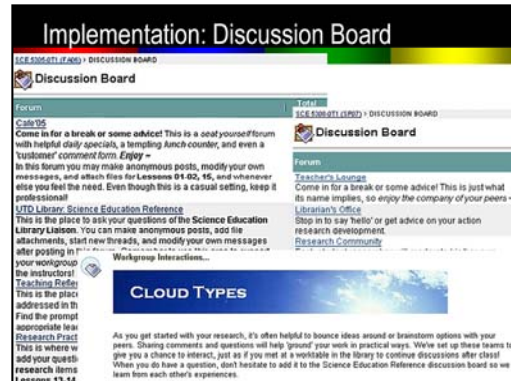
> Handout: Announcement summary

Used timed announcements that link to lesson content, workgroup tasks, and project development to ping students.

> relevant and productive, not extraneous and decided

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> Handout: Discussion Board summary

We dedicated a discussion forum to increase library visibility in each course – and to encourage conversations that were moderated by the expert liaison and shared among classmates. (read descriptions)

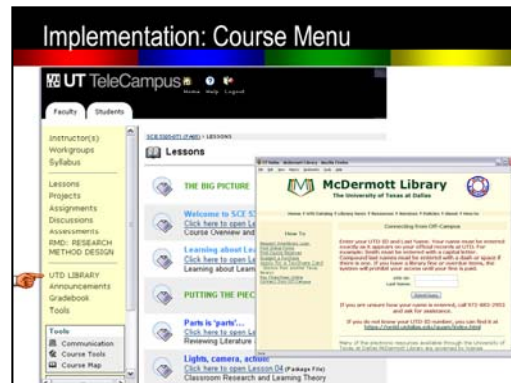
All of the students participated in the 5305 Science Education Reference forum in 49 total postings. 80% of the students voluntarily stopped in the 5308 librarian's office which had 35 postings. (refer to collected examples, handout)

> Handout: Project page detail (topic listing)

We got this aspect of the courses going by forcing initial interaction through project workgroups in SCE 5305. Refer to the handout to see the details of how the first few workgroup tasks link directly to the discussion forums. This practice communication developed skills, increased comfort, and helped to start new habits to ask for help and to provide feedback in appropriate ways.

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Constant reminder that it's there (no sidewalks!)

Easy access to proxy from within course itself

(like UTTC library on portal page)


Set to open in new window


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Implementation: Web Resources

- UTD
 - About
 - Resources
 - How to's
 - Services
- UTTC
 - Materials & Resources
 - Contact a Librarian
 - UTTC Digital Library FAQs
 - Faculty Services

**McDermott Library**
The University of Texas at Dallas

**Digital Library**

www.utdlibrary.org

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UTD McDermott Library

We embrace the mission of the University of Texas at Dallas by providing maximum access to relevant, authoritative, and scholarly resources.

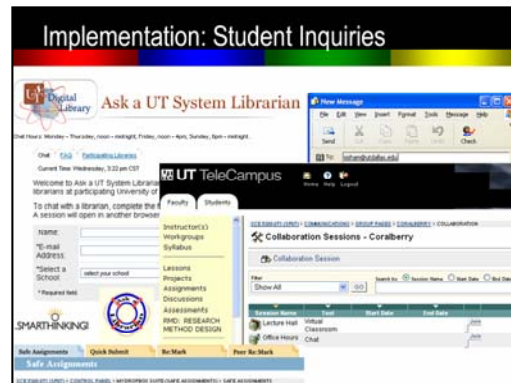
We are dedicated to maintaining a congenial atmosphere for the library community and will endeavor to advance the lifelong educational needs of our diverse clientele.

UTTC Digital Library

The UTTC Digital Library supports your studies and research through remote access to more than 60 electronic databases and resources including nearly 26,000 full text electronic journals and nearly forty thousand electronic books. When you are enrolled in a UTTC course, these resources can be accessed through the Digital Library link in the Student Links on the left. Just use your UTTC username and password to login. Useful tips about the UTTC Digital Library may be found in the Handbook. Need more help? Contact the UTTC Librarian at 1-888-TEXAS-16 (toll free) or via [email](#). The library provides reference and research assistance Monday through Friday from 8 am to 5 pm (Central time), offers Ask-A-UT System-Librarian Chat Service Sunday from 6 till midnight, Monday through Thursday, from noon until midnight, and Friday from noon until 6 pm (Central time), issues TexShare cards for borrowing privileges at participating academic and public libraries in Texas, and has a document delivery service for materials not available online.

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Chat

- Ask a Librarian
- Workgroup Collaboration Tool

Email

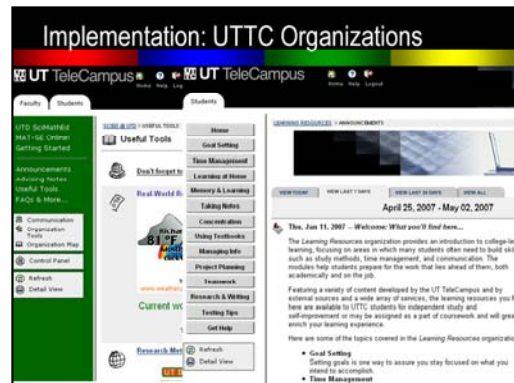
- Instructors
- Peers

Academic Tools

- Smarthinking
- Safe Assignment
- RefShare

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SciEd@UTD

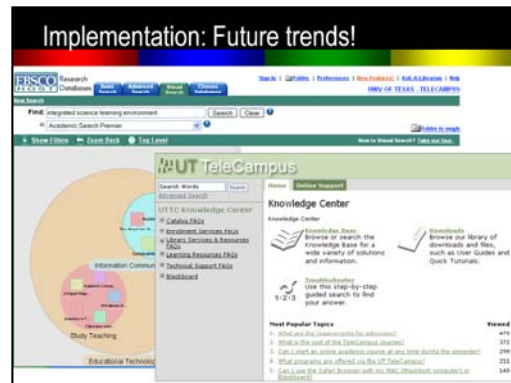
Learning Resources Collection for UTTC Students

The *Learning Resources* organization provides an introduction to college-level learning, focusing on areas in which many students often need to build skills, such as study methods, time management, and communication. The modules are available in the student portal tab for every student currently enrolled in a UTTC course. Login to Blackboard with the username: *uttcstudent* and password: *lifelong* and look for “Learning Resources” in the “Organizations” box. We welcome your [comments and suggestions](#).

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Grokker search
Pariture FAQ
Seamless access
TDL project

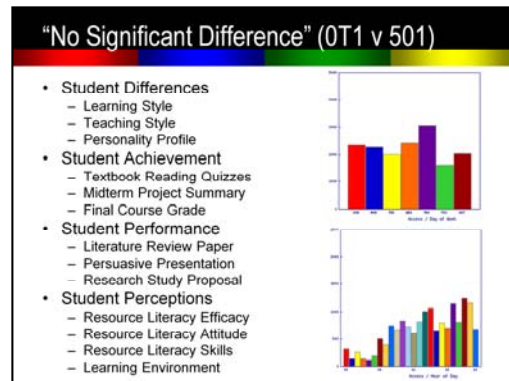


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Back to that Evaluation item: Directly compared online with onsite sections in Fa06

> Handout: NSD submission conclusions

Comprehensive statistical analysis indicated that there is no significant difference on any measure between the onsite and online sections. Longitudinal and qualitative data suggest that the course was improved in terms of content and context. Valid and reliable instruments were selected to quantify student outcomes and attitudes.

<briefly describe items listed on slide>

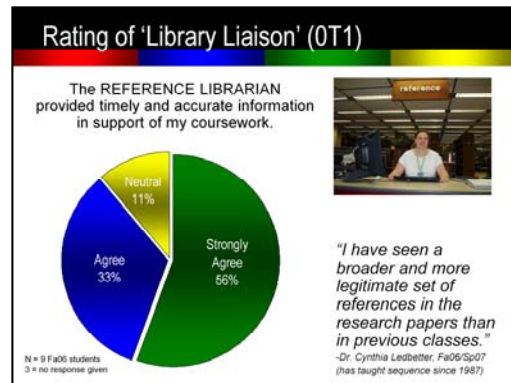
To compare student **perceptions**, a composite survey (Nix, 2006) was created to allow students to self-report on their efficacy, attitude, and abilities, as well as the course learning environment specifically. Data on the overall course design and delivery were collected also in the course evaluations

> Handout: 5305/5308 Posttests

Thanks to our meeting in the middle, we may have discovered a way to evaluate the new program in terms of whether or not it will be producing the model graduate. We're piloting a series of instruments (like the *Resource Literacy Questionnaire*) that are intended to assess each of the 7 literacy dimensions defined earlier. It will be interesting to see how these scales correlate to quantitative achievement data; and are supported by qualitative performance data derived from the course products and electronic archives. It takes time to develop these attributes fully. We hope that this longitudinal program evaluation will enable us to ensure that the courses are meeting the needs of MAT-SE candidates.

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The standard university *End-of-Course Evaluation* (Office of Educational Assessment, 1995) was administered by a departmental representative as a pencil-and-paper questionnaire to the onsite section at the last class meeting. A similar electronic survey was created for the online section to collect anonymous responses on those same items – and a few I added!

(N=9; 3 were unanswered):

The REFERENCE LIBRARIAN provided timely and accurate information in support of my coursework.

5 = Strongly Agree

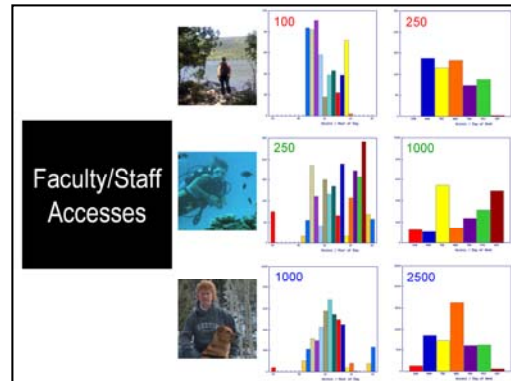
3 = Agree

1 = Neutral

Cynthia's observation is the true 'proof of the pudding' ...

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RN

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Out of sheer curiosity, I compared the instructors course accesses over the semester. We look just as different on bar charts as we do in person! Notice the scale variations...

Regardless, this long-term collaboration/joint development set the stage for success!

Work load – shared responsibility > interaction, roles clearly defined > value of library when integrated

Work habits – professionalism: didn't just 'stick on' librarian as a TA/RA/GA

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UTD Team celebrating MAT-SE Online launch: (L to R)

- Carol Oshel, Distance Education Librarian
- Cynthia Ledbetter, Science Educator and Research Course Instructor
- Stephanie Isham, Library Liaison to Science/Mathematics Education Department and Teacher Development Center
- Rebekah Nix, Senior Lecturer and Research Course Designer
- Loreen Phillips, Literacy Librarian

Wouldn't have happened without UTTC DE Librarian... Terry. She's working for all of us, actually everywhere all the time and virtually anywhere anytime!

UT4Me statements sum it up!

> Handout: UT4Me excerpt from Fall 2006 newsletter

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Slam it closed!

Critical elements for library integration vs instruction:

1. Focus
2. Design
3. Implementation
4. Evaluation

> Handout: Contact details