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*Driving Towards New Frontiers*

## **Extending the Learning Process: Using the Theory of Connectivism to Inspire Student Collaboration**

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### **Abstract**

For years, library instruction has taken place in 50-minute class periods in the library. Librarians have traditionally demonstrated various research tools, occasionally provided students with the opportunity for hands-on practice, and then sent them back to their regular classrooms. Due to these time constraints, this method does not always allow for one-on-one instruction or interaction among students in the class. By following the underlying principles advocated in contemporary learning theories, such as connectivism, librarians can work with teaching faculty to provide students with a collaborative learning experience that extends well beyond the library classroom.

## **Learning Theories**

Learning theories are commonly consulted in the instructional design process in many traditional educational settings, but can often be overlooked when planning for library instruction. However, understanding learning theories and how they can guide instruction can go a long way in ensuring library instruction sessions provide the most benefits for students. Not only can learning theories keep librarians focused when planning lessons, they also provide insight into the learning process of students. Librarians can use the principles of learning theories to create lessons that bridge the gap between in-person and online learning environments, and show students that research can be both a self-directed and collaborative process.

### **Constructivism and Cognitivism**

Educators have often relied on learning theories such as Constructivism, which is participant-centered and moves the focus from the teacher to collaborative student work (Jonassen, Howland, Moore, & Marra, 2003; Anderson, Annand, & Wark, 2005) and Cognitivism, which is characterized by individualized, self-paced learning and includes little, if any, peer-to-peer interaction. While both the Constructivist and Cognitivist learning theories provide ample pedagogical practices for designing instructional opportunities, their underlying principles do not often intersect and may leave something to be desired. In order to teach students that the research process is both a collaborative and self-paced process, librarians may need to venture beyond traditional pedagogy.

### **Connectivism**

Connectivism is a relatively new learning theory that blends the more traditional models of Cognitivism and Constructivism (Siemens, 2004). The connectivist learning theory is championed by George Siemens (2004) and Stephen Downes (2006), two theorists who are heavily involved in the current movement of MOOCs (massively open online courses). Connectivist learning is self-directed and flexible but also offers plenty of opportunities for peer collaboration.

Connectivism is characterized by self-paced, autonomous learning that still provides opportunities for peer-to-peer learning networks. Flexible learning activities are designed in a way that encourages interaction between instructors and students and among learners. Learning occurs in short bursts and is driven by the needs and interests of the learners.

Due in part to the unique blend of individualized learning and peer collaboration, Connectivism often uses social media and emerging technologies to facilitate learning. Social networks, which are built on the premise of collaboration and sharing, are ideal for the connectivist theory because their “interdependence results in effective knowledge flow, enabling the personal understanding of the state of activities organizationally” (Siemens, 2004, para. 6). Use of social media tools also provides opportunities for external learning situations that are not always available, or feasible, in face-to-face classrooms.

Librarians designing instruction based on Connectivist principles can use video sharing (e.g. YouTube or Vimeo), blogs, Twitter, podcasts, online discussion boards, and more to foster a sense of community among students while simultaneously allowing for immediate learning to occur.

### **Connectivism In Context**

Social media tools have been used by librarians at Wichita State University, including the author, to provide collaborative experiences and research support in individual courses. However, the author was looking for additional opportunities to heighten students' learning experience and promote hybrid instructional models that support students in the blended learning environments they are already familiar with. An opportunity presented itself when the faculty member of ENGL 362: American Writers I approached the author in spring 2011 about a library instruction session for students. The faculty member was interested in providing an instructional research component that went beyond the usual 50-minute class session.

Designed by the librarian and the faculty member, the library research component for ENGL 362 consisted of three parts: an in-person library instruction session led by the librarian where students were introduced to resources and techniques for efficient literary research; a “scavenger hunt” worksheet developed by the librarian and the faculty member, completed after the library session; and an online course research guide to which students contributed sources they found while completing their worksheet.

### **Library Instruction Session**

The face-to-face library instruction session was held in the library with 27 students and the instructor. The author and the faculty member collaborated to design student learning outcomes that corresponded with the course goals and objectives. The outcomes required students to:

- use various search tools to retrieve information in a variety of formats (article, book, website) in order to complete their library scavenger hunt.
- identify where to find research help in order to complete papers and assignments for the course.
- participate in collaborative research with classmates in order to build on the research findings of others.

Student learning was assessed by how well students did on the worksheet. The instructor and the librarian both reviewed students’ contributions to the online research guide as part of the assessment process.

The lesson plan for this part of the research session incorporated more traditional face-to-face classroom techniques, including an introduction to library resources for finding books, searching for articles in literature databases, finding relevant print journals, and developing topics (see Appendix 1).

### **Research Worksheet**

The faculty member and the author also collaborated in designing a 20-point research worksheet, or scavenger hunt, meant to give students experience looking for resources related to class topics and papers. The research worksheet took students through three sections of activities: *Library Catalog*, *Electronic Databases and Print Journals*, and *Keywords, Your Library, and You*. In the *Library Catalog* section, students found books based on course content. For example, one question asked students to “Find one book about ‘nineteenth century American newspapers’ OR find a book related to ‘American literature’ in Special Collections & University Archives.” The *Electronic Databases and Print Journals* section was constructed similarly, asking students to complete a variety of activities including “How many book chapters or essays about ‘naturalism’ and *Life in the Iron Mills* are listed in the online MLA International Bibliography?” The *Keywords, Your Library, and You* section of the worksheet required students to start thinking critically about course themes, their paper topics, and the research they completed in class. This final section of the worksheet asked students to list 2-3 concepts or keywords they associated with the course, suggest a topic based on their research experience while completing the worksheet, and then find a website or online archive related to that topic. Students were also required to evaluate the reliability of this site, providing another opportunity for critical thinking.

Students were allowed to complete the worksheet individually or in groups. This allowed for students with various learning styles to feel comfortable completing the assignment. Students stayed in the library classroom, which is equipped with desktop computers, and traveled back and forth to the library stacks to complete the activities. The author and the faculty member were available to assist students if they ran into trouble.

## Online Research Guide

The final part of the library research component focused on the learning outcome related to collaborative student research. Students completed this portion on their own time, after the library instruction class session.

The author worked with the WSU Systems Librarian to create an online research guide specifically for the ENGL 362 course. The guide was created using SubjectsPlus, an open source research guide software, and is different than a traditional research guide in that students were required to log in and contribute sources they found during the course of their research (Figure 1).

**Books**

*Cambridge Companion to Gabriel Garcia Marquez*. Ed. by Phillip Swanson. Cambridge: Cambridge UP, 2010. Print.  
This guide walks readers through biographical information about Marquez, critical receptions of his works, and even offers an essay entitled "Garcia Marquez, Magical Realism, and World Literature" by Michael Bell. Especially because Marquez is the first author read in this course, it is useful to read through these essays and understand how different the understanding of a story is when the full context of its publication (when, where, before and after what big events, and within the context of the author's life) is explored along with the actual text. Published by the Cambridge University Press, this book provides biographies of its contributors, who include professors from California, Oxford, and Liverpool. - Stephanie Fowler

Fu, Charles Wei-hsun, and Steven Heine. *Japan in Traditional and Postmodern Perspectives*. Albany: State University of New York, 1995. Print.  
This book explores the development of Japanese culture, including literature. It discusses how Japan holds onto its traditional heritage while progressing with modernist and postmodernist movements. This book would relate to a possible paper topic about Japanese literature. This book was published by State University of New York. I found this book in the WSU library Catalog. -Suzy Carbrej

Sanga, Jaina C. *Salman Rushdie's Postcolonial Metaphors: Migration, Translation, Hybridity, Blasphemy, and Globalization (Contributions to the Study of World Literature)*. Santa Barbara: Praeger Publishers, 2001. Print.  
This book brings to light the types of metaphors Rushdie often uses in his novels, and how these colonial metaphors are reimagined into his post-colonial novels. The five metaphors addressed are: migration (transfer of people/ideologies), translation (representing someone/something from one language to another), hybridity (fusing together elements that are seen as disparate), blasphemy (alteration of sacred beliefs by desecrating their representation), and globalization (homogenization of all cultures). With this new understanding of these themes in his work, the impact of Rushdie's post-colonialism is easier to discern. Written by Jaina C. Sanga, an adjunct professor of Cultural Studies at Southern Methodist University, she has taught at many universities and has many scholarly accomplishments. The publisher, Praeger, is well-known for publishing books used in all levels of schooling, especially books for high-school and college students. - Beth Horton

Wilson, Michiko N. *The Marginal World of OE Kenzaburo: A Study of Themes and Techniques* ME Sharpe. 1986. Print.  
This book is a laundry list of the different themes and literary devices used by Kenzaburo. It deals a lot with the historical context from which he was writing as well as his relationship to both his family and the changing government of Japan. It also takes into account his peers in the modern Japanese literary circle and relates Kenzaburo to them. In addition to this, the book takes time to discuss the specific merit and devices used by Kenzaburo in his fiction. This is a good resource for anyone wanting to find more information on why Kenzaburo wrote the things he did and what his inspirations were. Michiko Wilson is a novelist who has written about the themes and practices of asian writers for the last 2 decades. - Anthony Menefee  
*Daniel Pipes*, The Rushdie Affair, 2006  
The book explores the problems Salman Rushdie encountered after publishing The Satanic Verses and the short and long term consequences resulting from the reaction. Mark Allen

**Articles of Journals**

Hill, Errol G. "Calypso and War." *Black American Literature Forum* 23.1 (1989): 61-88. Print.  
Hill writes primarily about calypso music that deals with war and its consequences. He argues that calypso singers represent the majority view. His long history of calypso in Trinidad is particularly useful for our reading of V.S. Naipaul's *Miguel Street*.  
-Kimberly Engber

Mills, Moylan and Enrique Gronlund. "Magic Realism and Garcia Marquez's Erendira." *Literature/Film Quarterly* 17.2

Figure 1. Student contributions to the online research guide (available at <http://libraries.wichita.edu/subsplus/subjects/ENGL362>).

Student contributions to the guide were worth five points of the 20-point assignment, and they were encouraged to comment on one another's posts and to use the various sources listed in their class essays. The author provided students with detailed instructions on how to log in and contribute to the research guide (see Appendix 2). The faculty member was added to the research guide as an instructor, which helped provide context to the library instruction and the course as a whole (Figure 2).

### Library Guides: ENGL 362: American Writers I

**Introduction**

Welcome to the Course Guide for ENGL 362: **American Writers I**


This guide is a collaboration between the students, Dr. Engber, and your librarian, Melissa Mallon. The books, databases, journals, and web sites listed here will help you find scholarly articles, criticism, and more. Additionally, you will find several links to helpful resources on how to cite and construct a research paper. For additional resources, check out the library's [English Research Guide](#).


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**Topics**

Feminism in 19th Century American Literature

**Subject Specialist**

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Tel: (316) 978-5077

 **Kimberly Engber**  
Assistant Professor & Instructor  
Tel: (316) 978-6764

**Use the Online Catalog**

Search the Catalog

Keyword

Figure 2. Online research guide for ENGL 362 with librarian and instructor information.

The research guide is intended to remain for students in future semesters to contribute and build upon their previous classmates' research findings.

Overall, students were engaged in the lesson and enjoyed the activities. As one student remarked to the librarian while working on the research worksheet, "this scavenger hunt actually made me think!" The faculty member was also pleased with the outcome of the project, commenting that when issues or questions came up in class, "we can work through them together, students can help each other."

### Social Media Component

An added component to the ENGL 362 course, which extended beyond the library research instruction, was use of the social media site Piazza (<http://piazza.com>). Piazza, an educational network where students can post questions, start discussions, and answer posted questions, provides students with the opportunity to collaborate with their classmates and instructor in a familiar environment. By engaging in social discussion board, students are exposed to the collaborative nature of shared scholarship. While Wichita State University does use the learning management system Blackboard, which includes a discussion board feature, the faculty member was looking for a more dynamic and user-friendly discussion board for this project. Piazza was chosen for its added functionality and wiki-style layout. In this project, student contributions in Piazza ranged from comments about course readings (see Figure 3) to discussions about themes in American literature and posting articles they thought would be useful to their classmates.

The screenshot displays a Piazza discussion board interface. At the top, there is a header with a question icon and the text "question" on the left, and a "12 views" badge on the right. Below this is the title "Whitman's Leaves of Grass" in a bold font. The main text of the question reads: "Whitman's Leaves of Grass has been one of my favorite works that I have read in this class. I was wondering if anybody shared my same opinion and what part was your favorite." followed by a "#question" tag. Below the question text is a metadata bar containing "edit", "save to favorites" with a "0" count, and "more" with a dropdown arrow. On the right side of this bar, it says "5 months ago by Gage Gruning" and "2 edits" with a dropdown arrow. Below the question is a section for "the students' answer, where students collectively construct a single answer". The answer text says: "I really enjoyed this piece as well. There are so many elements to 'Song of Myself' it's hard to get bored with this poem and it's a poem that requires multiple readings. It's truly a great work. - Lauren Curley". Below the answer text is another metadata bar with "edit", "thanks!" with a "0" count, and "more" with a dropdown arrow. On the right side of this bar, it says "5 months ago by Lauren Curley" and "2 edits" with a dropdown arrow.

Figure 3. Student contribution to Piazza, a social discussion board.

Librarians can easily use a site such as Piazza to extend their instructional reach to students well beyond a one-time library instruction session.

### Tips for Successful Collaborations

Based on the success of this collaboration, the author offers several recommendations for librarians considering trying a similar project at their university. Having a strong lesson plan in place is crucial in keeping track of a research instruction component that includes several parts. Frequent collaboration with the faculty member or instructor on the student learning outcomes, the content for the instruction session, and the research worksheet will help ensure a fun, educational experience for all involved.

Planning an online research guide is a great method for fostering student collaboration, although it may seem daunting due to software or staff constraints. Many free online tools would work just as easily as SubjectsPlus or LibGuides: a wiki such as Wikispaces, Moodle, Google Drive, or even Piazza would offer similar functionality and not require the expertise of a Systems Librarian. No matter what type of tool is decided upon, an instruction sheet detailing how to contribute to the guide is essential, especially if students are unfamiliar with the tool.

As students become increasingly busy with full course loads and life/work schedules, it is more important than ever for librarians to impress upon students the importance of the research process. This can be accomplished by extending learning experiences beyond the classroom through collaborative social spaces such as an online research guide. By designing library research instruction in conjunction with the guidelines of the connectivist learning theory, librarians can easily provide opportunities for students to collaborate with their peers (and librarians!) at their own pace in social, digital environments with which they are already feel at ease.

## References

- Anderson, T., Annand, D., & Wark, N. (2005). The search for learning community in learner paced distance education: Or, "having your cake and eating it, too!" *Australasian Journal of Educational Technology* 21(2), 222-241. Retrieved from <http://www.ascilite.org.au/ajet/ajet21/anderson.html>
- Downes, S. (2006). Learning networks and connective knowledge. *IT Forum Paper 92*. Retrieved Nov. 2011 from <http://it.coe.uga.edu/itforum/paper92paper92.html>
- Jonassen, D.H., Howland, J., Moore, J., & Marra, R.M. (2003). *Learning to solve problems with technology: A constructivist perspective* (2nd ed.). Columbus, OH: Prentice Hall.
- Siemens, G. (2004). Connectivism: A learning theory for the digital age. *elearnspace*. Retrieved from <http://www.elearnspace.org>

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## Appendix 1: Lesson Outline

### Lesson Plan ENGL 362: American Writers I

#### Student Learning Outcomes

As a result of this instruction, you will be able to:

- use various search tools to retrieve information in a variety of formats (article, book, website) in order to complete their library scavenger hunt.
- identify where to find research help in order to complete papers and assignments for this class.
- participate in collaborative research with classmates in order to build on the research findings of others.

#### Content for Session (20 min – spend remaining time having students complete worksheet)

- Research guides: English
- Effective researching
  - subject headings search in the Catalog
  - MLA International Bibliography: “science fiction literature”
    - using quotations
    - limiting to articles only
    - Preview button & subject terms
    - Finding full text
- My contact information, reference chat

#### Assessment

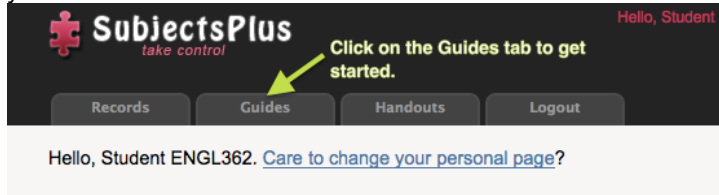
- Completion of worksheet
- Additions to course research guide



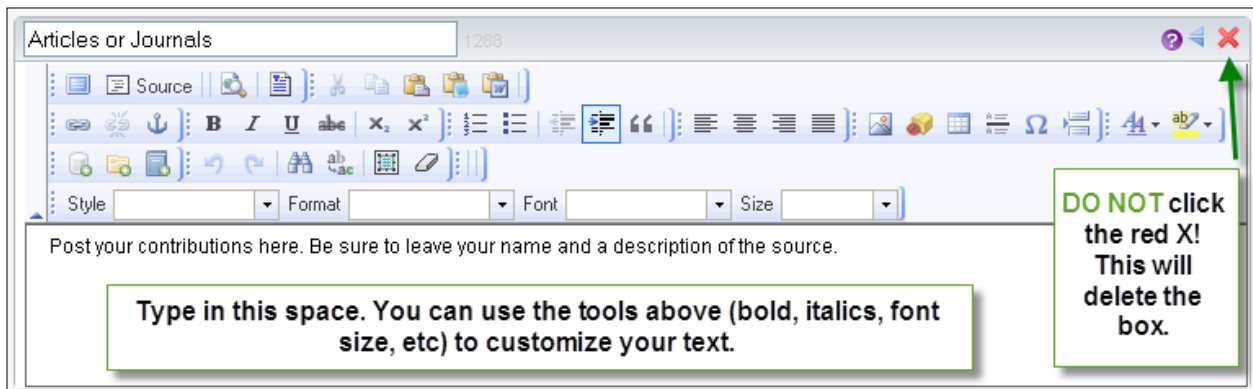
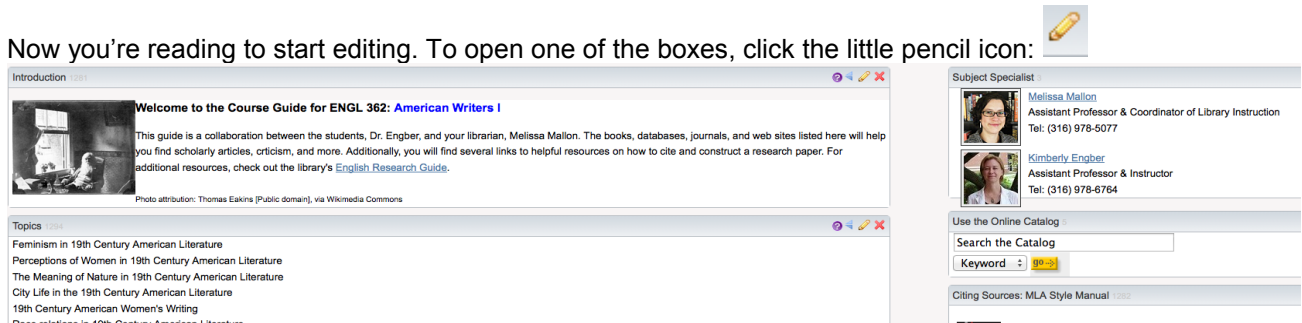
## Appendix 2: Research Guide Instructions

### Editing Dr. Engber's Course Research Guides in SubjectsPlus

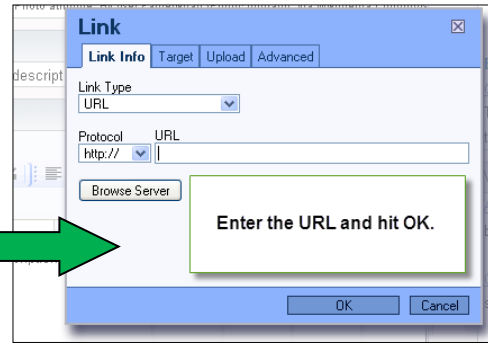
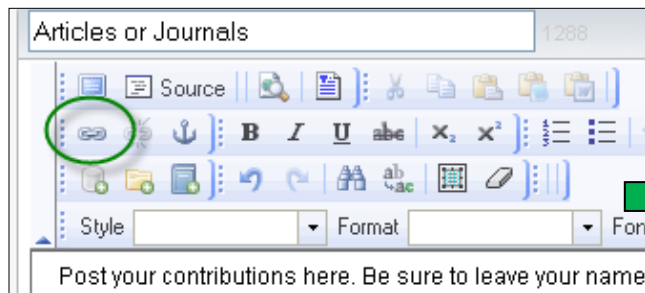
Log in to the research guide at <http://bit.ly/researchengber> using the username & password provided to you.



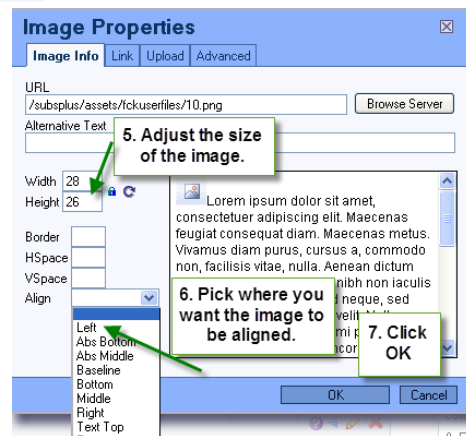
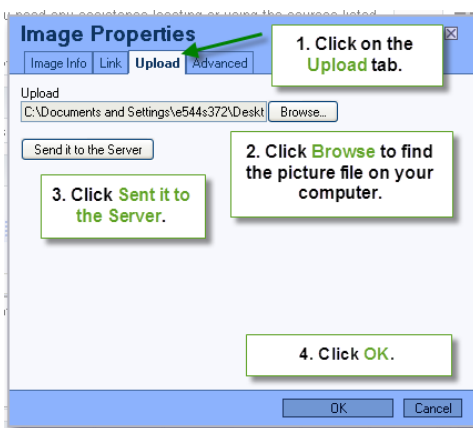
Now you're reading to start editing. To open one of the boxes, click the little pencil icon:



**Hyperlinks** – To hyperlink to a website or another online document, select the word or phrase you want to hyperlink & then click the chain icon in the text editor:



**Images** – To add pictures, click on the picture frame icon:



**IMPORTANT:** Do not click the red **X** in the text box when you're done editing. This will **delete** the box and all of its content. Instead, scroll to the top of the page and click the Save Changes button.

\*\*If you accidentally click the red **X**, that's okay. Just make sure you don't click "Save Changes" at that point. Instead, click the back arrow button on your web browser, and you'll go back to where you started. (But remember that this will also erase any editing changes you recently made).

### Other Things to Remember

- SubjectsPlus works best in Mozilla Firefox.
- You must be **on campus** to edit the research guides. You'll get a forbidden access message if you try to login to the guides from home (this is normal).
- Be sure to include your name and a description of the resource you're posting. Things to think about: Where did you find it? (a website? a database like MLA International Bibliography?) Evaluate its usefulness to the topic, its credibility & authority, etc.
- View the published guide here:  
<http://libraries.wichita.edu/subsplus/subjects/index.php>



**Have questions or problems?** Contact Dr. Engber or Melissa Mallon, the English Librarian, at [melissa.mallon@wichita.edu](mailto:melissa.mallon@wichita.edu) or 978-5077.