MEMORANDUM

Date: September 16, 2012

To: Sheri Hronek, ENGL3980 Students

From: Wes Turner

Subject: Assignment 2: Report Memo

This memo includes the Report Subject, Research Log, and Research Plan for my proposed report on Self-Directed Learning with Online Resources.

Contents

Report Subject

Self-Directed Learning with Online Resources

Subject

I formally request your permission to write about Self-Directed Learning with Online Resources. The report would address challenges, opportunities, and strategies for learning online by reviewing implementations of and empirical research regarding online-based instruction.

According to the Fact Sheet accompanying the President's Council of Advisors on Science and Technology (PCAST) February 2012 report entitled *Engage to Excel: Producing One Million Additional College Graduates With Degrees in Science, Technology, Engineering, and Mathematics*:

> Fewer than 40 percent of students who enter college intending to major in a STEM field complete college with a STEM degree today.

The PCAST STEM Report proposes four policy recommendations for increasing the retention rate and thereby producing one million additional college graduates with degrees in STEM fields.

1. catalyze widespread adoption of empirically validated teaching practices;

2. advocate and provide support for replacing standard laboratory courses with discovery-based research courses;

3. launch a national experiment in postsecondary mathematics education to address the mathematics-preparation gap;

4. encourage partnerships among stakeholders to diversify pathways to STEM careers; and

5. create a Presidential Council on STEM Education with leadership from the academic and business communities to provide strategic leadership for transformative and sustainable change in STEM undergraduate education.

The report would address how students can (1) learn using empirically validated teaching practices from (2) discovery-based online resources in order to (3) transform themselves into foward-thinking, mathematically capable (4) stakeholders in their community.

Terms

Self-directed:	Control of and responsibility for how, what, and when
Online Resources:	Web Sites, Web Applications, and Computer-Based Information Resources
STEM:	Science, Technology, Engineering, and Mathematics

Purpose

The report's purpose would be twofold:

1. Help lifelong learners acquire valuable skills by learning to learn with online resources.

2. Provide perspective for instructors interested in adapting and leveraging online resources.

Audience Profile

Audience Identity and Needs

Primary Audience:	Layperson Students / Lifelong Learners
Secondary Audience:	ENGL3980 Peers, Instructor
Relationship:	Peer, Co-Learner
Purpose of the document:	Analyze Online Learning Challenges, Opportunities, and Strategies
Intended use of document:	Learning
Technical Background:	Layperson
Prior Knowledge:	Computer and Web Skills
Additional Information Needed:	None
Probable Questions:	How is this relevant to my continuing education and lifelong learning?

Audience's Probable Attitude and Personality

Attitude Toward Topic:	Curious
Probable Objections:	Change
Probable Attitude Toward Author:	Benevolent
Organizational Climate:	Adapting
Persons Most Affected:	Grade Receiver
Temperament:	Amiable
Probable Reaction:	I want to try that.
Risk of Alienating Anyone:	Low Risk

Audience Expectations about the Document

Reason Document Originated:	Course Requirement -> Need for STEM Personnel
Reasonable Length:	15+ Pages

Material Important to this Audience:	Paycheck
Tone:	Helpfully Analytical
Cultural Considerations:	None
Intended Effect:	Interest in pursuing self-directed online learning

Audience's Probable Attitude and Personality

Attitude Toward Topic:	Cautious

Scope

The report would address challenges, opportunites, and strategies for reaping returns from online resources.

- Challenges
- Opportunities
- Strategies

Personal Experience

The interwebs have allowed me to acquire knowledge, skills, and wisdom on my own. Through the generosity and attention-seeking of online resource creators, I have learned to:

- Create Websites with HTML, CSS, and Javascript
- Write code in Various Programming Languages
- Edit Video
- Interpret Stories
- Pass Math Class

I would like to give back.

Challenges

With self-directed learning, the relation between student and instructor may be less defined. Self-motivated learning and exploration require students to assume some of the roles that a formalized instructor fulfills.

It may be difficult to address our Prussian tendencies in relation to both creativity and the achievement gap.

Research Log

Preliminary Research

Conducted September 16, 2012.

Citations are in APA format. If you find a citation error, I welcome your feedback.

Requirements

- • 3 Journal Articles with Proper Citations

- • 4 Web Sites (.gov, .org, .edu, .com)

- • Evaluate 4 Web Sites in Paragraph Form for:

    - • Content

    - • Design

    - • Ease of Use

    - • Credibility

References

President's Council of Advisors on Science and Technology. (2012).
Engage to Excel: Producing One Million Additional College Graduates
With Degrees in Science, Technology, Engineering, And Mathematics.
OSTP: President's Council of Advisors on Science and Technology.

Means, B., Yukie Toyama, B. A., Murphy, Robert, Bakia, M., & Jones, K.
(2010). Evaluation of Evidence-based Practices in Online Learning.
Evaluation. Retrieved from
http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf

Journals

Journal Searches are listed below in the following format:

Database :: [Search Terms] :: # Journals

UNOmaha Criss Library Journal Search :: [online learning] :: 4 journals

Journal of Interactive Online Learning
Journal of Online Learning and Teaching
Mobile, Hybrid, and On-line Learning (ELML), International
Conference on
Online journal of distance learning administration

UNOmaha Criss Library Journal Search :: [educational technology] :: 15 journals

Australasian journal of educational technology
British journal of educational technology
Cabell's directory of publishing opportunities in educational technology
    and library science
Contemporary educational technology
Educational and Information Technology (ICEIT), International Conference on
Educational media and technology yearbook
Educational technology
Educational technology & society
Educational technology research and development
Information and Communication Technology in Educational Sciences
International Journal of Educational Research and Technology
Journal of educational technology systems
Journal of the Research Center for Educational Technology
TOJET the Turkish online journal of educational technology
World Journal on Educational Technology

Journal Articles

Journal Articles are listed below in the following format:

Database :: [Search Terms] :: # Articles

Academic Search Premier (EBSCO) :: [SU: online learning] :: 1 result:

Not Relevant

Academic Search Premier (EBSCO) :: [AB: online learning] :: 4543 results

Shaw, R.-S. (2012). A study of the relationships among learning styles,
    participation types, and performance in programming language learning
    supported by online forums. Computers & Education, 58(1), 111–120.
    doi:10.1016/j.compedu.2011.08.013

Shum, S. B., & Ferguson, R. (2012). Social Learning Analytics.
    Journal of Educational Technology & Society, 15(3), 3–26.

Business Source Premier (EBSCO) :: [online training] :: 4708 results

Wan, Z., Compeau, D., & Haggerty, N. (2012). The Effects of Self-Regulated
    Learning Processes on E-Learning Outcomes in Organizational Settings.
    Journal of Management Information Systems, 29(1), 307–340.

Chio, K. S. (2012). Effective practices in providing online, in-service
    training to health professionals in low-resource settings.
    International Journal of Training & Development, 16(3), 228–234.
    doi:10.1111/j.1468-2419.2012.00406.x

Kamenetz, A. (2012). The Coursera Effect. Fast Company, (168), 98–118.

> ### *Note*
>
> All of the preceding journal articles are available either in hardcopy, web-based fulltext, or web-based PDF form through the UNO Criss Library.

Web Sites

Web Searches are listed below in the following format:

> Search Engine :: [Search Terms] :: Result Count

Google :: [Online Learning] :: 861,000,000 results

> Means, B., Yukie Toyama, B. A., Murphy, Robert, Bakia, M., & Jones, K.
>   (2010). Evaluation of Evidence-based Practices in Online Learning.
>   Evaluation. Retrieved from
>   http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf

I must assume content from the Department of Education (**ed.gov**) to be credibly trustworthy. I found this report PDF in the first page of search results and had hoped that trimming the filename from the URL would redirect to a web page describing the resource. I would guess that accessibility policy determines the site resolution and font sizes required of agency web sites. Site search for the PDF title returned the PDF report as the first result. I like that the search field is placed at the top of the page, though it could be wider.

Google :: ["Against School"] :: 715,000 results

> Gatto, J. T. (2003, September). Against School - John Taylor Gatto.
>   Harper's Magazine. Retrieved from http://www.wesjones.com/gatto1.htm

Harpers Magazine Search :: [against school gatto] :: 8 results

> Gatto, J. T. (2003, September). Against school: How public education
>   cripples our kids, and why. Harpers Magazine, 32–38.

Google :: [inurl:.edu online learning analytics] :: 63,900 results

> Stein, Z. (2012, August 13). Learning Analytics and the Learning Sciences.
>   Retrieved September 16, 2012, from http://www.educause.edu/node/267647

The content hosted by **educause.edu** is of superb helpfulness in regards to my proposed research subject. While it is unfair to judge design from a netbook, the expansive site header requires scrolling below the fold to rearch the content of interest. In regards to ease of use, the site could benefit from more descriptive URLs. Given the .edu URL and institute listed by the speaker of this particular URL, I would consider the site trustworthy.

Bing :: [coursera] :: 506,000 results

Pedagogy. (n.d.).Coursera. Retrieved September 16, 2012, from
   http://www.coursera.org/

The content hosted by **coursera.org** is of extreme quality. Instructors at top-tier universities are truly delivering credible content. The site design is very effective in presenting the courses and course descriptions without extra noise. The use of Twitter bootstrap for buttons gives the design a familiar look and feel, as well as a simply usable interface.

Google :: [edx.org] :: 2,600,000 results

About edX. (n.d.). Retrieved September 16, 2012, from
   https://www.edx.org/about

The content hosted by **edx.org** is of extreme quality. Instructors at MIT, Harvard, and UC Berkeley are truly delivering credbile content. The course descriptions present the most relevant information at first glance, with a well-designed, easy to use set of graphical icons as well as video up front.

Yahoo :: [opencourseware] :: 54,700,000 results

About OCW. (n.d.).MIT OpenCourseWare. Retrieved September 16, 2012, from
   http://ocw.mit.edu/about/

The content hosted by **ocw.mit.edu** is of extreme quality. Instructors at MIT have been delivering credible, quality course content and materials for a number of years. While I do appreciate the site design, the fonts could be a little larger for my tastes. The tree of links on the sidebar makes the breadth of content very approachable.

Wikipedia :: [self directed learning] :: 1 result

Wikipedia contributors. (2012, September 16). Autodidacticism. Wikipedia,
   the free encyclopedia. Wikimedia Foundation, Inc. Retrieved from
   http://en.wikipedia.org/wiki/Autodidacticism

Wikipedia :: [wikipedia accuracy] :: 1 result

Wikipedia contributors. (2012, September 13). Reliability of Wikipedia.
   Wikipedia, the free encyclopedia. Wikimedia Foundation, Inc. Retrieved
   from http://en.wikipedia.org/wiki/Reliability_of_Wikipedia

ASk.com :: [openbadges] :: unknown # results

About OpenBadges. (n.d.).Open Badges. Retrieved September 16, 2012, from
   http://openbadges.org/en-US/about.html

Research Plan

Strategy

I would perform research utilizing both secondary and primary research resources in order to deliver the report on time and on budget.

Secondary Research

I would utilize internet search engines, academic journals, and government reports as secondary research resources.

Search Engines utilized would include Google, Google Scholar, Yahoo, and Bing.

Academic Journals utilized may include any of the journals I found while searching the UNO Criss library that I have listed in the Journals section of my research log.

Goverment Reports utilized would include the PCAST STEM report and Department of Education report entitled *Evaluation of Evidence-based Practices in Online Learning*, that I have cited in my research log.

Primary Research

In search of real human perspective from primary sources, I would conduct interviews of prior and current students from a range of generations and learning backgrounds.

I would interview:

- An individual from the information technology industry with a perspective on lifelong education
- A STEM instructor
- An individual with firsthand experience regarding the challenges of traditional STEM education

Schedule

Research Schedule

Research Section	Time Estimate
Secondary: Implementations	3 weeks
Secondary: Challenges	2 weeks
Secondary: Opportunities	2 weeks
Secondary: Strengths	2 weeks
Primary: Interview: IT Interview	1 week
Primary: Interview: STEM Instructor	1 week
Primary: Interview: STEM Student	1 week

Report Schedule

Assignment #	Deliverable	Due Date
2	Report Subject & Research Strategy	September 16, 2012
3	Proposal & Detailed Outline	September 30, 2012
4	Report Draft	October 14, 2012
5	Report Design	October 21, 2012
	Final Report	November 18, 2012
	Presentation	December 2, 2012

Budget

Direct Costs

Item	Cost
Photopaper	10.00
Index Cards	5.00
Parking	5.00
Books	50.00
Articles	45.00
Total	**105.00**