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A Case Study in Writing Digital Literacy Materials

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Course Background

- The curriculum innovation called Electronic Texts for Health Literacy© are written by students in an undergraduate course called Public Health Communication.

- Students learn that the two main goals of public health communication are to inform and to persuade.

- The course outlines a variety of theory-based approaches to communicating health messages that aim to change health outcomes (behaviors).

- Students critique how visual and textual rhetoric help to improve the health literacy of children and adults while also improving their health habits.

- Problem-based learning is used to highlight the language challenges that many people face when learning about their health.

Main Outcome

Digital Literacy Partnership at Miami University

... promotes the contributions of literacy, health, and technology on learning.

Literacy is the number one predictor of our quality of life and health status.
Our mission is to form scientific and artistic partnerships to advance the understanding of health communication message design by increasing access to written materials that are valid, reliable, authentic, and equitable for children, youth, and adults.

We invite you to explore our following three interdisciplinary databases:

Children's Picture Book Database at Miami University
What? A collection of picture book abstracts searchable by topics, concepts, and skills for building content-area reading, writing,and oral language skills across all academic subjects.
For Whom? Teachers of all disciplines, librarians, authors, illustrators, and publishers.

Health Literacy Database at Miami University
What? A collection of Electronic Texts for Health Literacy© which promote cognitive behavioral skills for healthy living across the lifespan.
For Whom? Health professionals interacting with clients in non-profit agencies, dental and medical clinics, governmental organizations, universities, and pre-K educational settings.

Health Advocacy Database at Miami University
What? A collection of Public Service Announcements that advocate for human health and well being in national and international contexts.
For Whom? Health professionals and program planners seeking media releases on a variety of health topics and initiatives.

We welcome partnerships in digital literacy. Our current partners are found here.

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In partnership with the University Libraries Center for Digital Scholarship.
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Elements of Electronic Texts for Health Literacy©

- Realistic photographs about the thinking (reasoned) actions of people
- Visual- textual- gestural-lexical patterns
- Skill focused: cognitive skills & literacy skills
- Standards aligned
- Theory guided
  - Salient Beliefs from the Integrative Theory of Behavioral Prediction (Yzer, 2002)
    - Health Outcome Beliefs
    - Normative Beliefs
    - Efficacy Beliefs

http://dlp.lib.miamioh.edu

Overview of the Project

- Our project focuses on the design and dissemination of digital materials in which a template produced by a faculty member's research in health education curriculum afforded students an opportunity to also produce and help disseminate needed electronic materials for low literacy audiences, both children and adults.

- The inquiry-based pedagogical process for each student was guided by the professor's templates and editorial feedback individually and collectively throughout a health communications course then students crafted their own interpretations using the design templates.

- The technical designs were produced sequentially - first with a written narrative then a visual narrative - so that consumers would eventually be able to access a variety of "show and tell" examples of health-related habits and daily health routines on our Digital Literacy Partnership website.

Overview of the Project, *continued*

- During the production of their Electronic Texts for Health Literacy©, students used PowerPoint to integrate their autobiographical scripts with personal photographs of health-related actions in daily life situations within authentic environments.

- The main benefit of the E-Text design is the depictions of both the "thinking and doing" of health-related behaviors, represented both visually and textually in pictures and words.

- Also, the layered design of the visual-textual narratives with gestural and postural actions makes the E-Text curriculum innovative for health promoting materials.

- Students not only learn how to write patterned scripts for low literacy audiences, they gain autonomy and voice in their own personal health and well-being when serving as a virtual role model for others.

Overview, *continued*

- The innovation of writing both narrative and expository information into an Electronic Text for Health Literacy© meant that students wrote from their own backgrounds about themselves as role models, which afforded them both "voice and choice" in what they would include in their written E-Text.

- Their compositions included both realistic photographs and a repetitious lexical pattern them emphasized either decision making "right here right now" or goal setting "for the future".

- The visual textual narrative was based on a template for page layout, font size, and type of font, but the resulting stories were unique and idiosyncratic. These variabilities were especially enjoyable at the end of the semester when students presented their E-Text in a juried show for Best of Show, 1st, 2nd, and 3rd place – voted upon by their peers using a scoring rubric.

Pedagogies of Engagement

- The teaching and learning of the eBook occurred through problem based learning, cooperative learning, and service learning.

- These "pedagogies of engagement" (Ubbes, 2008) gave students a way to think about the problem of writing for low literacy audiences from two perspectives: 1) the objectivist myth of knowing and 2) the community of truth (Palmer, 1998).

Design Solutions

Identified Problems with a Shift to Solutions

- Need for a skill-based curriculum for health, not only a fact-based approach;

- Need for health literacy to become the "new" health education because of the No Child Left Behind (2002) policy to teach children reading (and writing) skills. And now the revised ESSA policy (Every Student Succeeds Act, 2015) shifts regulatory power from the federal level to the states to regulate school performance with the potential "to put education policies into place that connect health and learning" (healthyschoolscampaign.org) and "focus on the whole child by acknowledging the importance of mental health and wellness"; and

- Need to focus on the "sine qua non" of healthy lifestyles - **daily patterns, health habits, and routines** - with the essential motivating beliefs, reasoned actions, and intentions "to do" those Habits of Health and Habits of Mind (Ubbes, 2008).

Problem Based Learning

What behavior?

What skill?

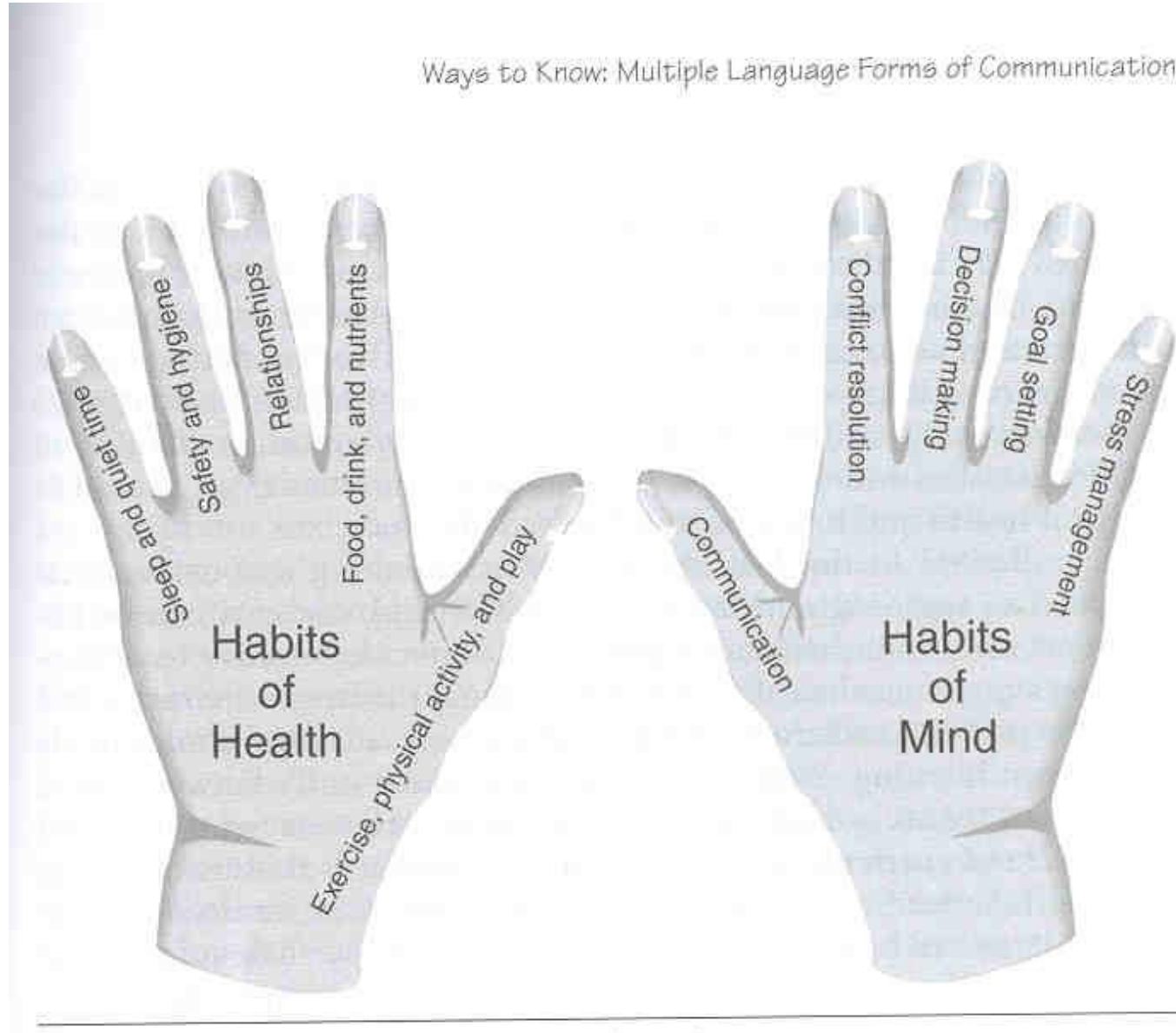Choose one of each to write an Electronic Text for Health Literacy©

Figure 4.1   Habits of health and habits of mind.
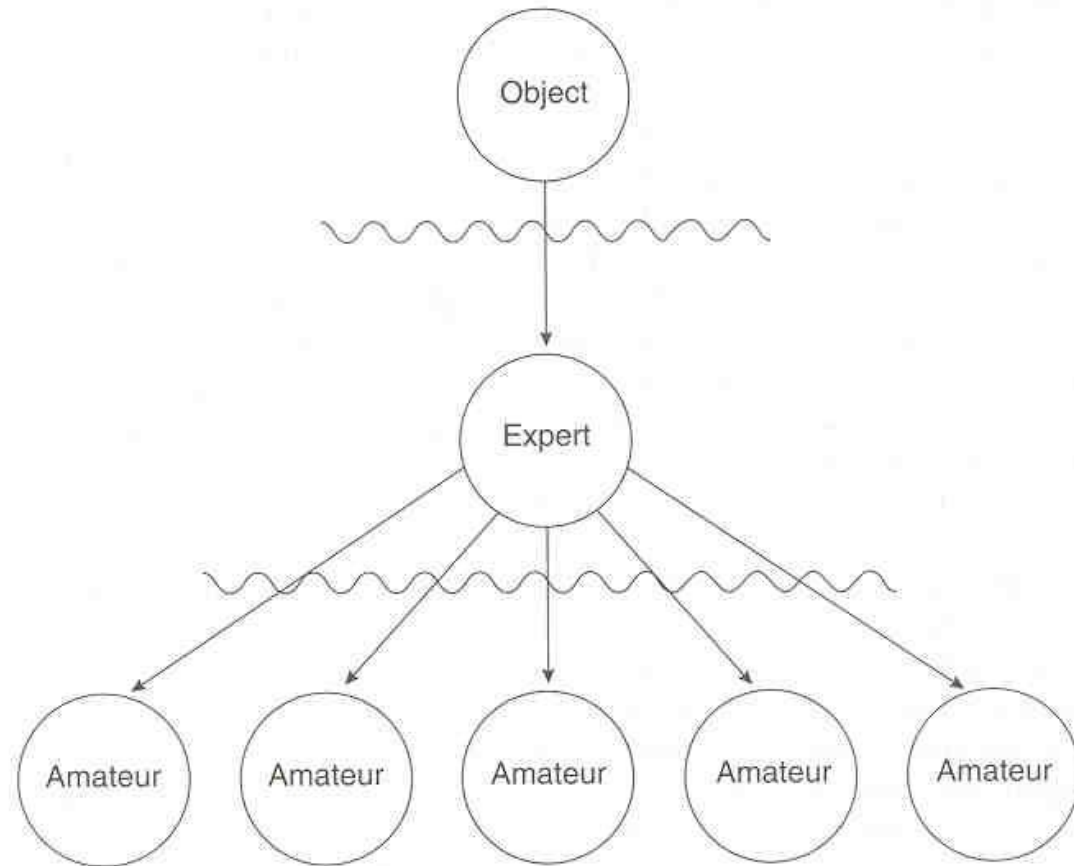
Cooperative Learning?

Figure 2.2 The objectivist myth of knowing.

From P.J. Palmer, 1998, *The courage to teach* (San Francisco: Jossey-Bass), 100. Reprinted with permission of John Wiley & Sons, Inc.
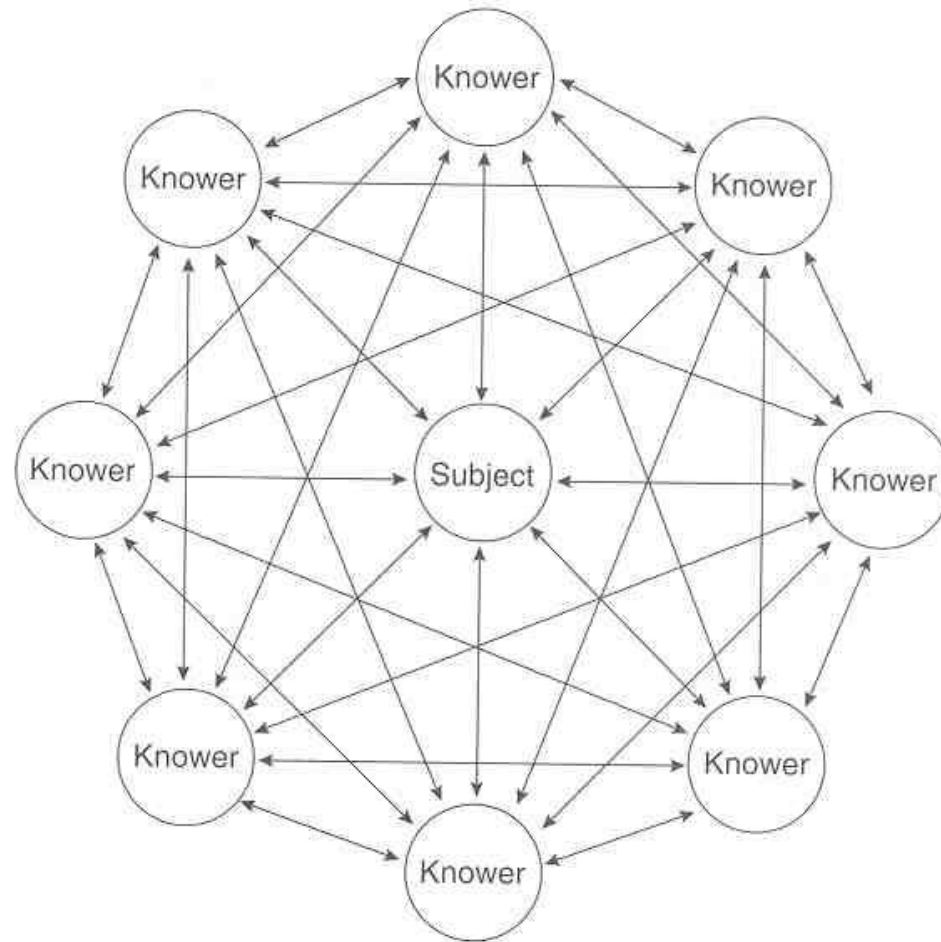
Cooperative Learning

Figure 2.3 The community of truth.

From P.J. Palmer, 1998, *The courage to teach* (San Francisco: Jossey-Bass), 102. Reprinted with permission of John Wiley & Sons, Inc.

Digital Service Learning Project

- Students grant permission to share their projects on the Digital Literacy Partnership (DLP) website (http://dlp.lib.miamioh.edu) using a service learning contract.

- The student work is then available for use by visitors to the website who are looking for health literacy materials that are skill-based.

- Students can place the weblink citation right into their resume.

- Digital literacy has been described as "the myriad of social practices and conceptions of engaging in meaning making by texts that are produced, received, distributed, exchanged, etc., via digital codification" (Mein, Fuentes, Soto Mas, & Muro, 2008)

Website Impact:

Digital Literacy Partnership

- The DLP website project went live in February 2014 and since then we have used Google Analytics to collect web usage statistics.

- Between February 14, 2014 and November 30, 2016, our data shows that the DLP has had more than 31,000 users and a total of 142,753 page views from 153 countries.

- The United States represents 70% of total sessions with 19 countries having over 100 visits during the two-year time period.

- Examples of countries include Australia, United Kingdom, India, Japan, Spain, Brazil, Philippines, and Indonesia.

- The top ten U.S. states with 600 visits include in order: Ohio, California, Florida, New York, Texas, North Carolina, Illinois, Virginia, Pennsylvania, and Massachusetts.

Writing Process is….

- Story Narrative
- Expository Information

- Students combine story narrative and expository information to write a new genre of literature called Electronic Texts for Health Literacy©.
- A collection of E-Texts on a behavioral theme is called an eBook. Current project: eBook for Oral Health Literacy
- Students write one E-Text with one other student (dyads) with sensitivity to cultural nuances then each student writes one more E-Text alone as an autobiographical story.
- Students choose the health behavior and cognitive skill to focus on when writing an E-Text.

Design Improvements

I decide to chew sugar-free gum with my brothers because it is better for our teeth.

I decide to keep my teeth healthy by drinking milk every morning with my brother.

Writing Outcomes

Analysis of written narratives by students at the end of the semester resulted in 10 content themes as organized by an NVIVO sort:

Essay Final Exam questions focused on:
1) What design principles did students learn to use when writing Electronic Texts?
2) What did the E-Text project teach them about writing for a low literacy audience?

- health
- health habits
- health communication
- health messages
- textual messages
- health literacy
- low literacy
- lexical patterns
- visual textual
- design decisions

Writing Outcomes, *continued*

- The final grade of the course was associated with a higher density of sentences, content themes, and vocabulary written by each student.

- Students who scored lower in the course had fewer concepts and vocabulary in their narratives.

- Functional health literacy, which is the ability to read, write, and speak about health, plays an important role in students' ability to identify key content to write about and represent in their health literacy narratives.

- This finding is interesting for the current service learning project, because students were given a design template from which to write and produce an Electronic Text for Health Literacy© that would be accessed online and read by lower literacy audiences in the future.

Questions?

Thank you!

Note: We are looking for Digital Literacy Partners to join our project.

References

Digital Literacy Partnership Website with 3 Databases to promote literacy, health, & technology.   **http://dlp.lib.miamioh.edu**

Tzoc, E. & Ubbes, V.A. (2017). The Digital Literacy Partnership Website: Promoting interdisciplinary scholarship between faculty, students, and librarians. *New Review of Academic Librarianship*, https://doi.org/10.1080/13614533.2017.1333013

Ubbes, V.A., Coyle, J., & Tzoc, E. (2017). Evaluation of the Digital Literacy Partnership and eBook for Health. EHS Interdisciplinary Research Seed Grant. Miami University, Oxford, OH.

Ubbes, V.A. (2008). *Educating for health: An inquiry-based approach to preK-8 pedagogy*. Champaign, IL: Human Kinetics