

Challenges for Collections in New Collaborative Teaching & Learning Environments: Does Grey Literature Fill a Void?

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Yankelovich's 5 Trends for Higher Education

- Changing life cycles as our nation's population ages
- America's growing vulnerability in sci/tech
- Need to understand other cultures & languages
- Increasing challenges to higher education's commitment to social mobility
- Public support for other ways of knowing



Making higher education relevant

- Reducing the haves and the have nots
- Eroding the digital divide
- Recognizing challenges of social, political, religious, & economic extremes and biases



Critical skill sets as defined by Richard Hersh as needed by students

- Weigh, organize & synthesize evidence from different sources
- Distinguish rational from emotional arguments; facts from opinion
- Analyze data
- Deal with inadequate, ambiguous or conflicting information
- Spot deception and holes in the arguments of others
- Recognize what is meant by being relevant
- Identify additional information that might help to resolve issues



Information Literacy is:

The set of skills needed to find, retrieve, analyze, and use information. Information literacy is more closely tied to course-integrated instruction but it extends far beyond coordination between the reference librarian and the individual faculty member. Even a cursory review of the Information Literacy Competency Standards ([link](#)) will show that there is much more to information literacy competence than library-related research. Students must demonstrate competencies in formulating research questions and in their ability to use information as well as an understanding of ethical and legal issues surrounding information. This requires a campus culture of collaboration and focus on student learning (ACRL)



Role of Library/Bibliographic Instruction

- How to search, find, evaluate information
- To understand scholarly communication principles & practices
- How to cite, organize & recall information within intellectual property guidelines
- Establish familiarity with course management platforms
- Promote collaboration and group or team skills
- Integrate writing, data analysis, quantification and presentation skills



Evidence-based practice has origins in:

- Clinical care – medicine, nursing, public health
- Social Services
- Criminal justice and corrections
- Business & Management
- Engineering, Project Management & Design
- Consumerism



Evidence-based care involves:

- Integration of best research evidence with clinical expertise and patient values
- Ethical dilemmas
- Allowing for more transparency in decision processes
- Tools and resources
- Identifies where there is a lack of resources
- Highlights gaps in knowledge
- Enables best practices
- Identifies the variability in health care



5 Essential Steps in EBP

- Convert information needs into answerable questions
- Track down best evidence to answer questions
- Critically appraise evidence performance for its validity and usefulness
- Apply results of the appraisal in clinical practice
- Evaluate performance and outcomes



Focus on Collections: Information & Knowledge

- Finding research resources
- Accessing research
- Appraising research
- Applying research



P I C O

- P = Patient / Population / Problem / Situation
- I = Intervention (treatment method)
- C = Comparison (alternatives)
- O = Outcome interest




Hierarchy of Evidence

- Meta-Analysis
- Systemic Review
- Randomized Controlled Trial
- Cohort Studies
- Case Control Studies
- Case Series / Reports
- Basic Laboratory & Animal Research



Evaluation Process of Online Information

- Examine website - whose is it
- Who supports site
- What is purpose of site
- Where does information come from and how
- What is basis of information
- Currency
- Linkages & relationships to other sources
- What information about user is collected
- How are interactions managed with visitors



Elements of Critical Thinking for EBP

- Problem identification & analysis
- Clarification of meaning
- Gathering the evidence
- Assessing evidence
- Inferring conclusions
- Other considerations
- Overall judgment



Interventions for non-clinical literature

- Policies of government & non-governmental organizations (NGOs)
- Laws & regulations
- Organizational development initiatives
- Education of individuals & community
- Engineering & technical developments
- Service development & delivery
- Communication



Medical Literature

- Reference sources – MedlinePlus
- Textbooks & Case Books - Brandon-Hill or Doody's list
- Empirical studies, journal literature & databases - PubMed, PsycINFO, CINAHL, etc
- Systematic Review Literature – Cochrane
- Drug & clinical content – PubMed Clinical Queries, UpToDate, Natural Medicines Comp Database, eMedicine Database, TRIP Plus, InfoPOEMS/Info Retriever, GIDEON, etc
- Discipline specific content – Nursing – JBI Reports
- Grey Literature – alternative sources, nontraditional



Contrasted to Engineering Literature

- Data intensive - Handbooks
- Maps & spatial information
- Patents
- Standards
- Dissertations
- Ergonomics & safety
- Government information
- Physical Science content - chemistry, physics, math
- Journal literature
- Conference Proceedings
- Grey Literature - repositories, archives, GRID



New Focus for Instruction

- Business / Management Literature / Data
- Information Technology with greater reliance on Computational Biology
- Larger Datasets & banks - DNA
- More manipulation
- Legacy collections
- Higher degree of confidence in finding & evaluating best evidence to support outcomes & products



5 Strengths of Evidence

- Systematic review of multiple well-designed randomized controlled trials
- Properly designed randomized controlled trial of appropriate size
- Without randomization
- Well designed non-experimental studies from more than one source
- Respected opinions – expert advice



**Thank you for your
attention.**