The intersection of information skills and behaviors with the steps of evidence-based practice (EBP) in local professional health programs curricula

Waltz MJ, Moberly HK, Pepper C, et al. SCC/MLA 2021 Presentation; Medical Sciences Library, Texas A&M University

1

Authors

- **Micah J. Waltz**, MS, MS VPHE, *mwaltz@tamu.edu*
  Biomedical Sciences Lecturer, College of Veterinary Medicine, Texas A&M University

- **Heather K. Moberly**, MSLS, AHIP, FHEA, PgCert (Vet Ed), *hmoberly@tamu.edu*
  Coordinator of Veterinary Information and Research Services, Medical Sciences Library, Texas A&M University

- **Catherine Pepper**, MLIS, MPH *cpepper@tamu.edu*
  Regional Services Coordinator, Medical Sciences Library, Texas A&M University

- **Christina M. Seeger**, CPhT, MLS, AHIP *seeger@tamu.edu*
  Pharmacy and Health Science Center Librarian, Medical Sciences Library, Texas A&M University

- **Stephanie Fulton,** MSIS, AHIP, *s-fulton@tamu.edu*
  Associate Dean and Director, Medical Sciences Library, Texas A&M University

Waltz MJ, Moberly HK, Pepper C, et al. SCC/MLA 2021 Presentation; Medical Sciences Library, Texas A&M University

2

OBJECTIVE AND BACKGROUND

Objective

We created two approaches to continue developing a medical library instructional schema supporting information skills and behaviors for academic health sciences programs.

- Mapping the alignment of the steps of evidence-based practice (EBP) with information skills and behaviors within the local programs' curricula

- Analyzing the representation of information skills and behaviors in curriculum standards for the programs' accrediting bodies

Waltz MJ, Moberly HK, Pepper C, et al. SCC/MLA 2021 Presentation; Medical Sciences Library, Texas A&M University

4

Background

- The library supports five professional health programs
  - Veterinary Medicine
  - Medicine (Human)
  - Nursing
  - Pharmacy
  - Public Health

- Program-level curricula created by programs themselves

- The disciplines for each of the programs use evidence-based practice (EBP)

Waltz MJ, Moberly HK, Pepper C, et al. SCC/MLA 2021 Presentation; Medical Sciences Library, Texas A&M University

5

METHODS

Two Phases of Coding and Mapping

- Collected curricular documents

- Created novel rubric from the collected documents

- Coded the documents using the rubric

Reference for this phase:
Waltz MJ, Moberly HK, Carrigan EE. Identifying information literacy skills and behaviors in the curricular competencies of the professional health programs. JMLA. 2020;108(3).

- Coded updated curricular documents and added accreditation documents

- Curricular documents mapped to the steps of EBP

Reference for this phase:
Manuscript forthcoming

Phase 1:
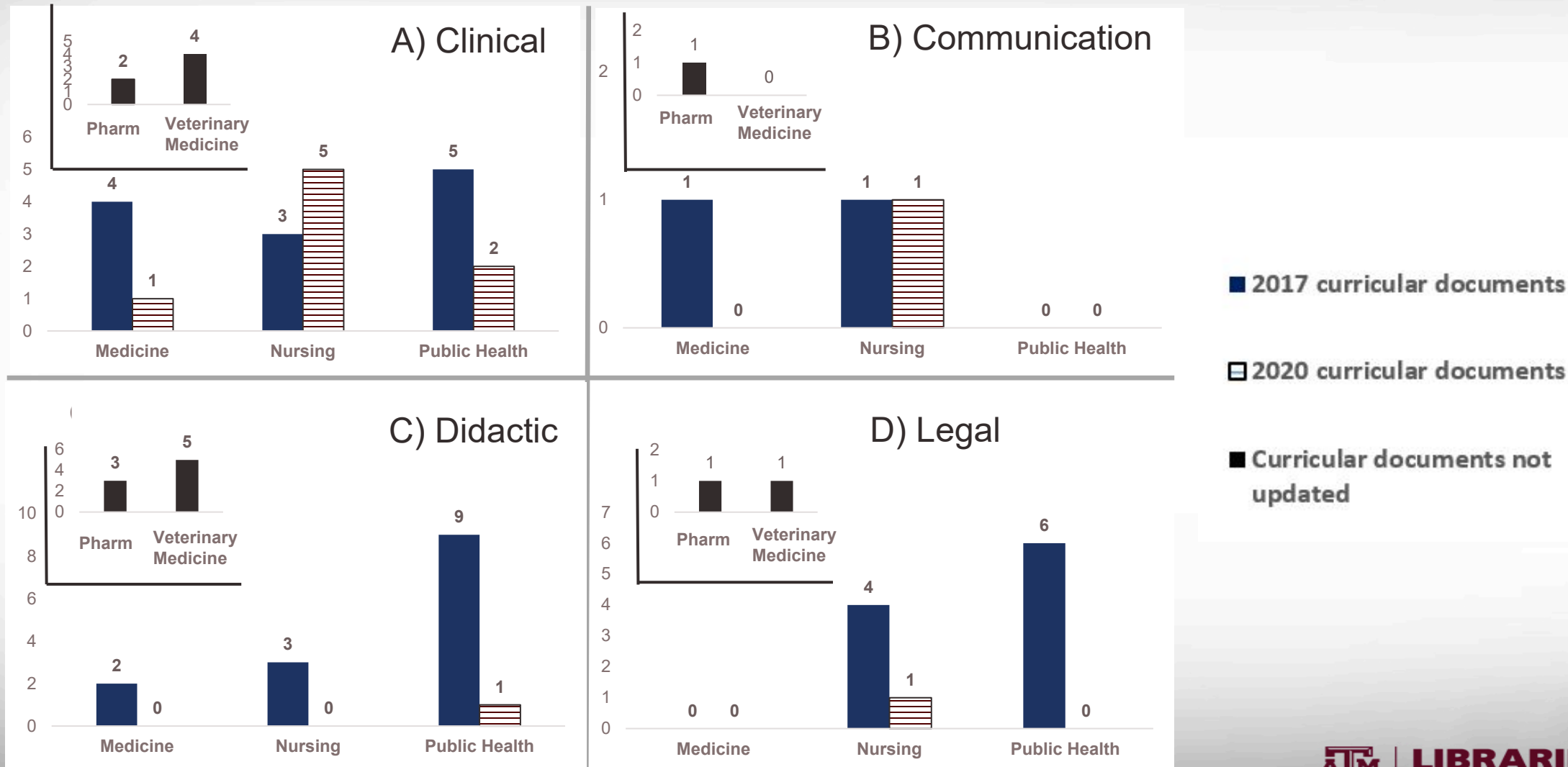2017-2019

Phase 2:
2020-2021

ATM | LIBRARIES
TEXAS A&M UNIVERSITY

Updated Rubric for Phase 2

Nine categories were identified from the curricular documents:

Coding Categories
1.   Clinical Skills
2.   Communication skills/human interaction
3.   Didactic knowledge and understanding
4.   Ethics
5.   Information seeking behaviors and skills
6.   Leadership/professional
7.   Legal awareness, organizational awareness, and advocacy/ethics
8.   Statistics, experimental design, understanding, or application
9.   Other

RESULTS

# Changes in Co-occurrence of Information Seeking Behaviors by Rubric Code

Changes in Verb Usage in Competencies with Information Skills and Behaviors

- Pharmacy and Veterinary medicine were not changed 2017-2020

- Medicine, Nursing, and Public Health curricular updates included different verbs

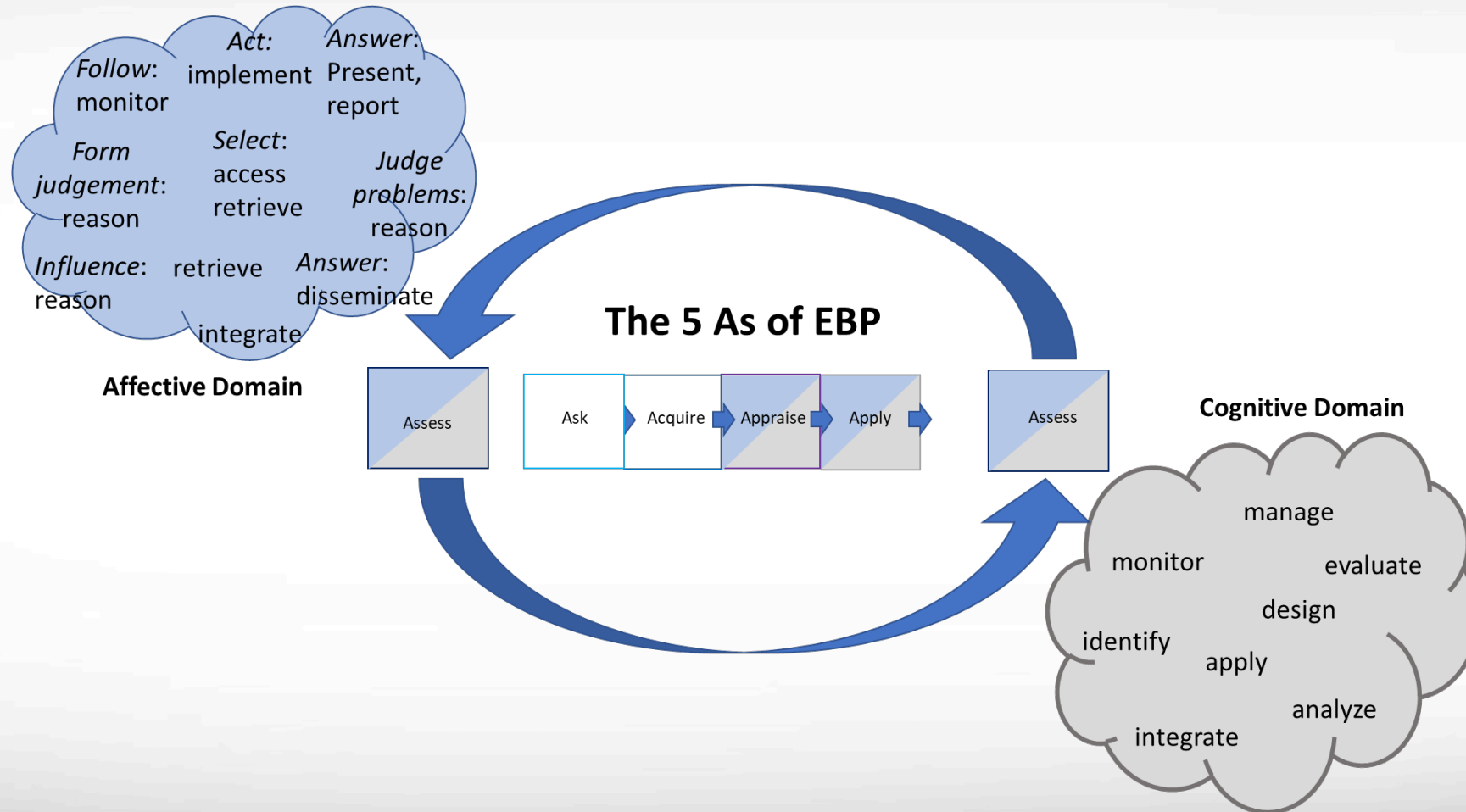| Programs	Verbs dropped in 2020 Competencies	Verbs added in 2020 Competencies	Verbs kept from 2017 to 2020 Competencies
Medicine	Based, interpret, utilize, record, select, appraise	Engage, evaluate, identify, manage, monitor, reason, retrieve	NA
Nursing	Analyze	Apply, design, integrate, implement, using	Evaluate
Public Health	Evaluate, analyze	Apply, explain, integrate	NA

Verb Changes in Updated Curricula
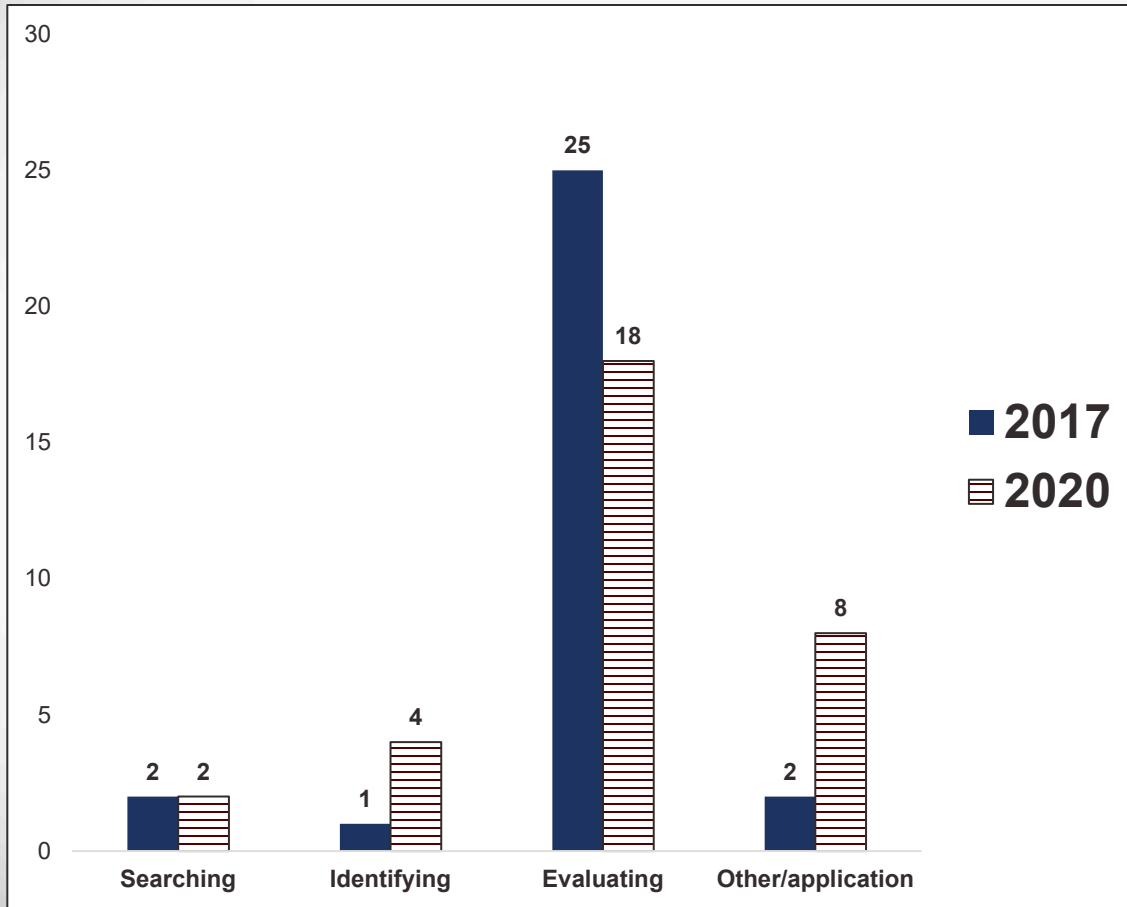
- The verbs associated with *searching* stayed the same 2017 and 2020.

- Verbs involved with *identifying* and other/application (of) information **increased.**

- Verbs associated with *evaluating* **decreased.**

Mapping the Competency Verbs to the steps of EBP and the Affective and Cognitive Domains

Taxonomy	Ask	Acquire	Appraise	Apply	Assess
Cognitive	identify		analyze	apply integrate	evaluate
Affective		retrieve	Form judgement: reason	Act: implement	Form judgement; Judge problems: reason

- Bloom BS, Engelhart MD, Furst EJ, Hill WH, Krathwohl DR. 1956. Taxonomy of educational objectives: the classification of educational goals. Handbook I: Cognitive domain. New York: David McKay Company.

- Krathwohl DR, Bloom BS, Masia BB. 1965. Taxonomy of educational objectives: Handbook II: Affective domain. New York, NY: David McKay Company.

Waltz MJ, Moberly HK, Pepper C, et al. SCC/MLA 2021 Presentation; Medical Sciences Library, Texas A&M University

13

Linking Competency Verbs with the Steps of EBP and the Affective and Cognitive Domains

Affective Domain

Follow: monitor
Act: implement
Answer: Present, report
Form judgement: reason
Select: access retrieve
Judge problems: reason
Influence: reason
retrieve
Answer: disseminate
integrate

The 5 As of EBP

Assess | Ask | Acquire | Appraise | Apply | Assess

Cognitive Domain

manage
monitor
evaluate
design
identify
apply
analyze
integrate

CONCLUSIONS

Informing Instruction and Other Support

- Identify additional places for liaison librarians to support instruction
  - Additional instructional opportunities
  - Informs collection development

- Use the affective/cognitive domains to develop, or modify, learning objectives and goals that are tailored to programs' curricular documents
  - Framed within the context of the 5As of EBP

Conclusions

- Information literacy continues to be present in all five professional programs' curricular programs

  - In the curricular documents updated in 2020 (Med, Nursing, Public Health), analysis of verbs indicates a shift in the areas of emphasized information skills and behaviors, becoming more aligned with the steps of EBP

  - These verbs map to both the Cognitive Domain (Bloom's) and Affective Domain, which will help inform future instructional endeavors

- There is little direct emphasis on the *ask* and *acquire* steps of EBP

  - The emphasis in curricular documents is implied
  - May indicate the expectation of competencies developed before attending a professional program

Questions

Presentation available at OAKTrust:
http://oaktrust.library.tamu.edu/