MILLER Levels

KNOWS General Knowledge

KNOWS HOW Can write general directions

SHOWS HOW Can demonstrate knowledge/skills/attitude (ability)

DOES Can demonstrate knowledge/skills/attitude with a degree of independence

Examples

Data Mining

Knows: The learner is exposed to data mining, what it is – why it is used. Content used for teaching could be a book chapter topic, article chosen by the instructor

Knows How: The learner knows or understands enough to read and comprehend in-depth content. Could write some basic directions for data mining, SQL or Python queries, can analyze an article. Content used for learning could be articles or a book about data mining recommended or chosen by instructor.

***Shows How*:** The learner knows enough (can be part of a team) to either discuss or participate in a presentation, write a paper or report on topic/s about mining a data set with feedback from the instructor or audience or others. Content can be faculty chosen and learner chosen.

Does*:* A learner can query a data set to solve a data problem or answer a question on a final exam or for a project. A learner is able to provide/demonstrate a desired outcome independently without guidance, such as publish an article, present a topic presentation, or summarize and interpret information to make or write recommendations for a data mining project. Learner chooses the content (if needed) that they will use to achieve an assessment outcome.

Systematic Literature Review

Knows: The learner has general knowledge/overview of what a Systematic Literature Review is. Can frame a question/s for a review.

Knows How: The learner has learned how to find databases, and other resources needed for a Literature Review. Can Identify relevant work.

Shows How: The learner can assess the quality/or lack of quality of the evidence (of work, studies, materials) being collected and considered for the review.

Does: The learner can summarize their evidence and interpret findings from their review materials, documents, etc. and make recommendations for future studies.