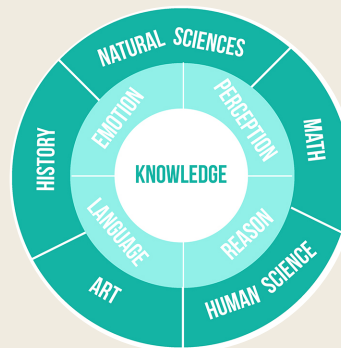


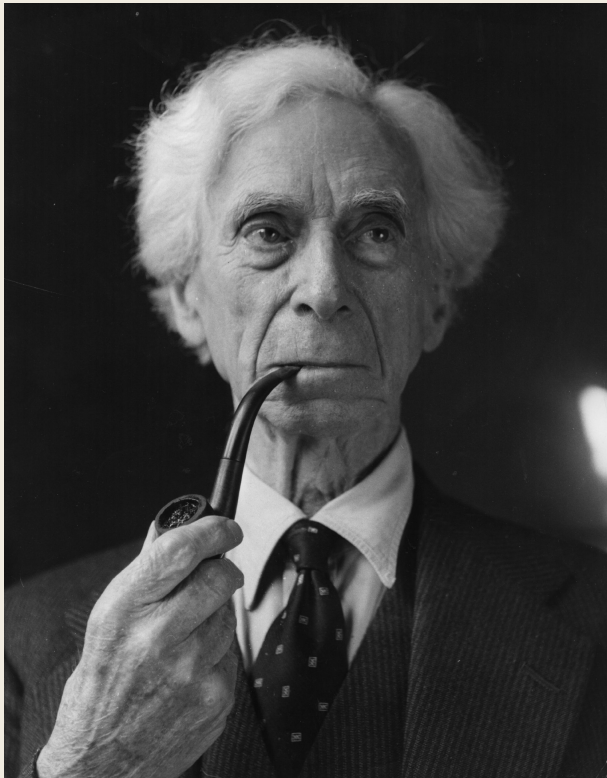
Knowers & Knowing

Types & Levels of Knowledge

TOK L5



Types of Knowledge



Bertrand Russell (1872-1970):

“knowledge by acquaintance” & “knowledge by description”

Categories from Cognitive Science:

Knowledge of *what* - factual & conceptual

Knowledge of *how* - procedural & metacognitive

Knowledge can also be measured by *breadth & depth*:

Consider the levels of thinking in Benjamin Bloom’s taxonomy
& Norman Webb’s Depth of Knowledge models (next slide)

Bloom's Taxonomy



Creating:

Can students create a new product or point of view?
They would be able to assemble, construct, create, design, develop, formulate, write, or invent.

Evaluating:

Can the student justify a stand or decision?
To evaluate information, a student might: appraise, argue, defend, judge, select, support, value, and evaluate.

Analyzing:

Can the student distinguish between the different parts?
They would be able to compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, or test.

Applying:

Can the student use the information in a new way?
They would be able to choose, demonstrate, dramatize, employ, illustrate, interpret, operate, sketch, solve, use, or write.

Understanding:

Can the student explain ideas or concepts?
They would be able to classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, or paraphrase.

Remembering:

Can the student recall or remember the information?
They would be able to define, duplicate, list, memorize, recall, repeat, reproduce, or state.

Webb's Depth of Knowledge

DOK-1

Assessment Ceiling

RECALL AND REPRODUCE

Who?
What?
Where?
When?

DOK-2

Assessment Ceiling

APPLY KNOWLEDGE AND SKILLS / BASIC REASONING

How did it take place?
Why did it take place?
How does it operate?
Why does it operate?

DOK-3

Assessment Ceiling

STRATEGIC THINKING

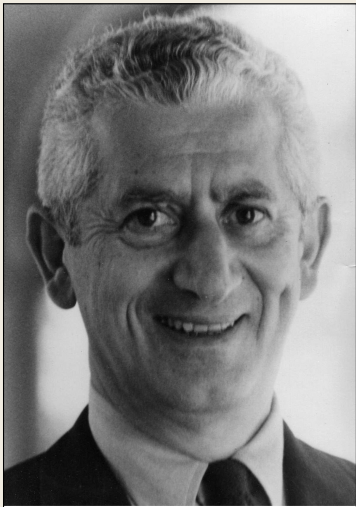
How can I make use of it to solve a problem?
Why does it solve the problem?
What is the cause, effect, or, reason?
What are the intended and unexpected outcomes?

DOK-4

Assessment Ceiling

EXTENSIVE THINKING

(Thinking creatively to transfer knowledge across content areas and over time.)
What do you think, feel, or believe?
What will or could happen?
What is the relationship?
How did it influence?
What if ?



ASSIGNMENT FOR NEXT WEEK:

Depth of Knowledge

Choose a topic from one of your academic subjects and apply either Bloom's taxonomy or Webb's DoK to it, describing what knowledge at each level might look like.