

What is Bloom's Taxonomy really for?

IATEFL Brighton, 18 April 2024

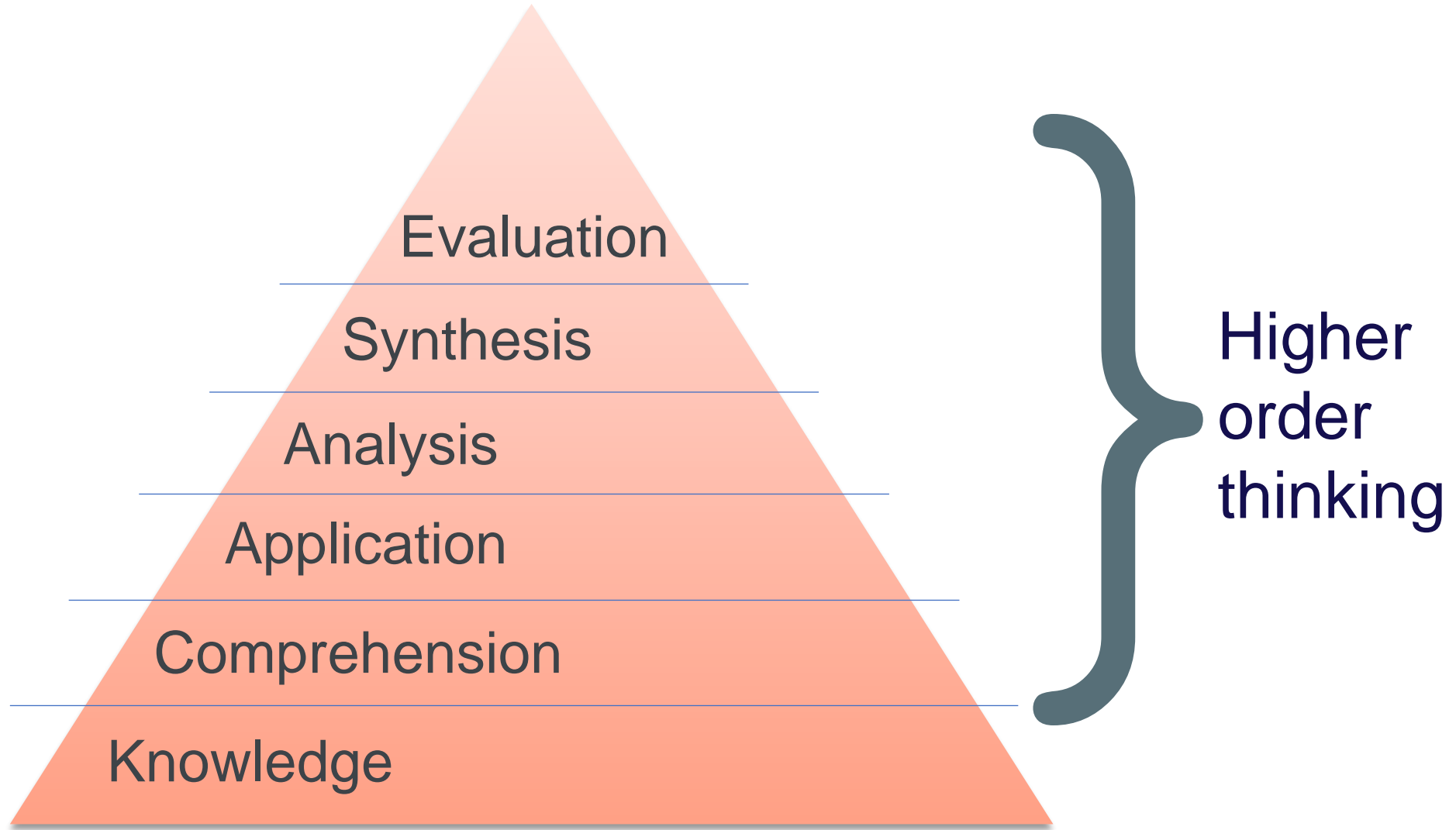
Sebastian Lesniewski

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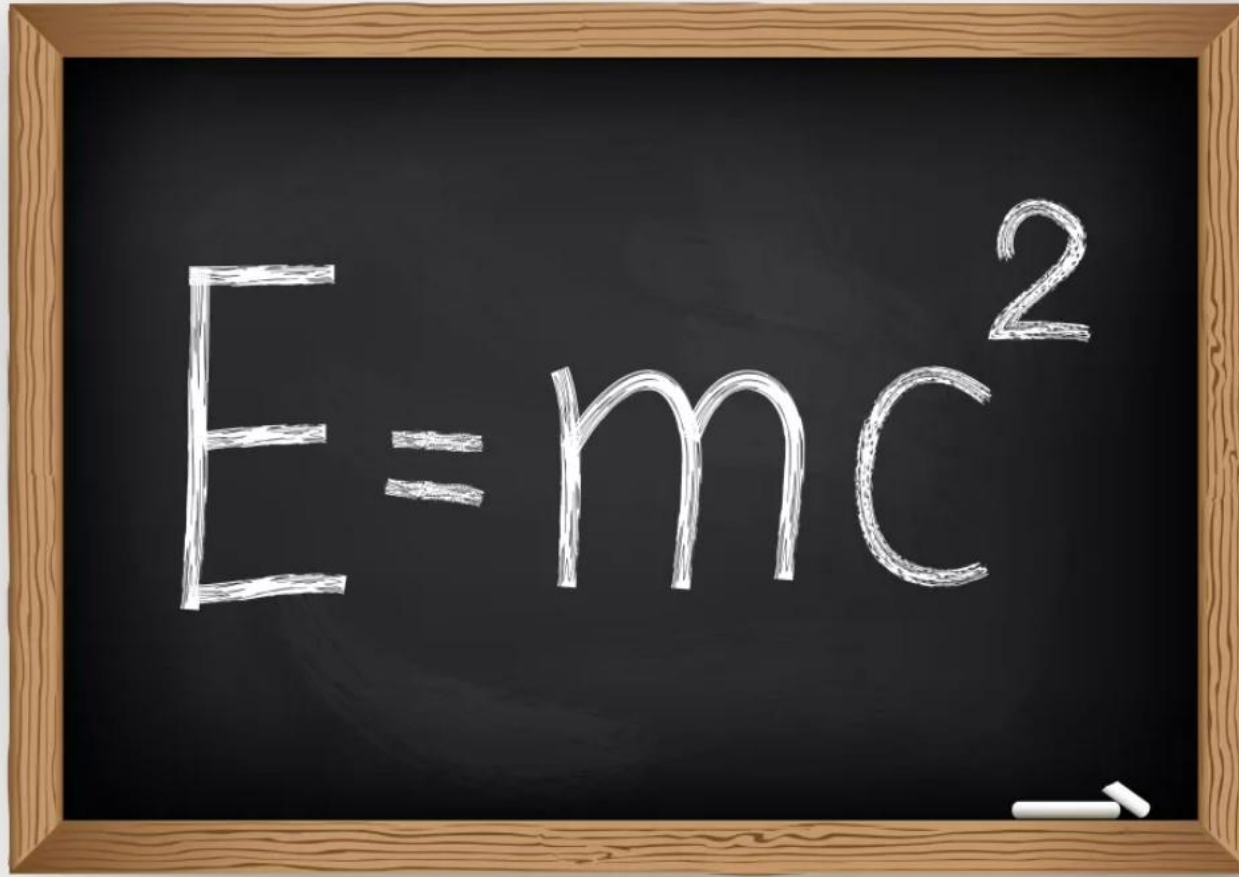
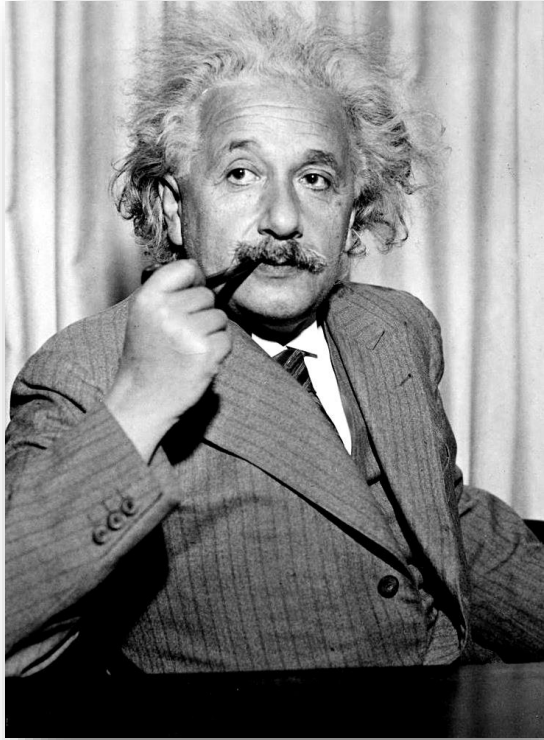
SebastianLesniewski.com

Where I'm coming from

- Language teacher since 2002
- Gravitated towards EAP
- Pre-sessional courses since 2013
- Foundation Year programmes since 2017
- Senior Lecturer and Academic Lead for Research since 2021
- Coming to IATEFL conferences since 2012



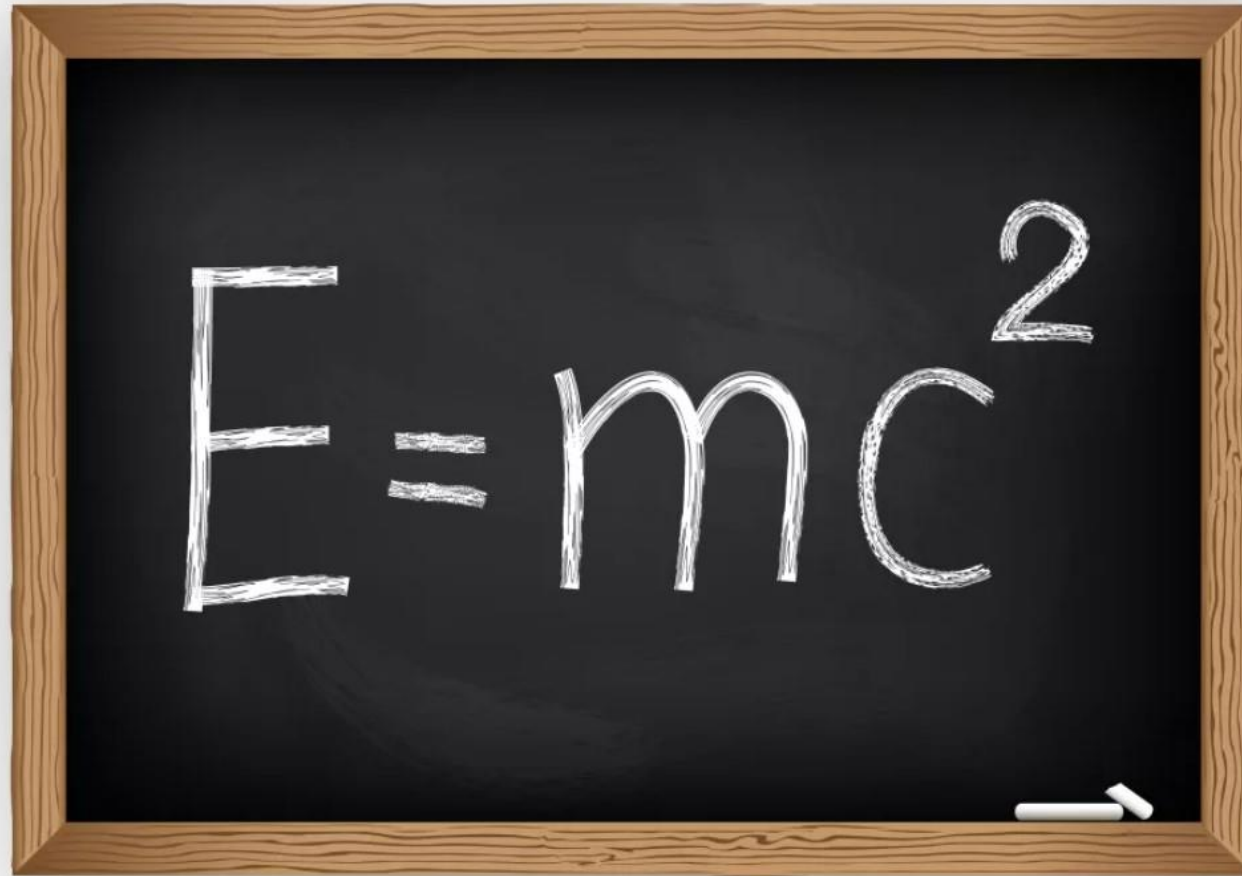
an equation



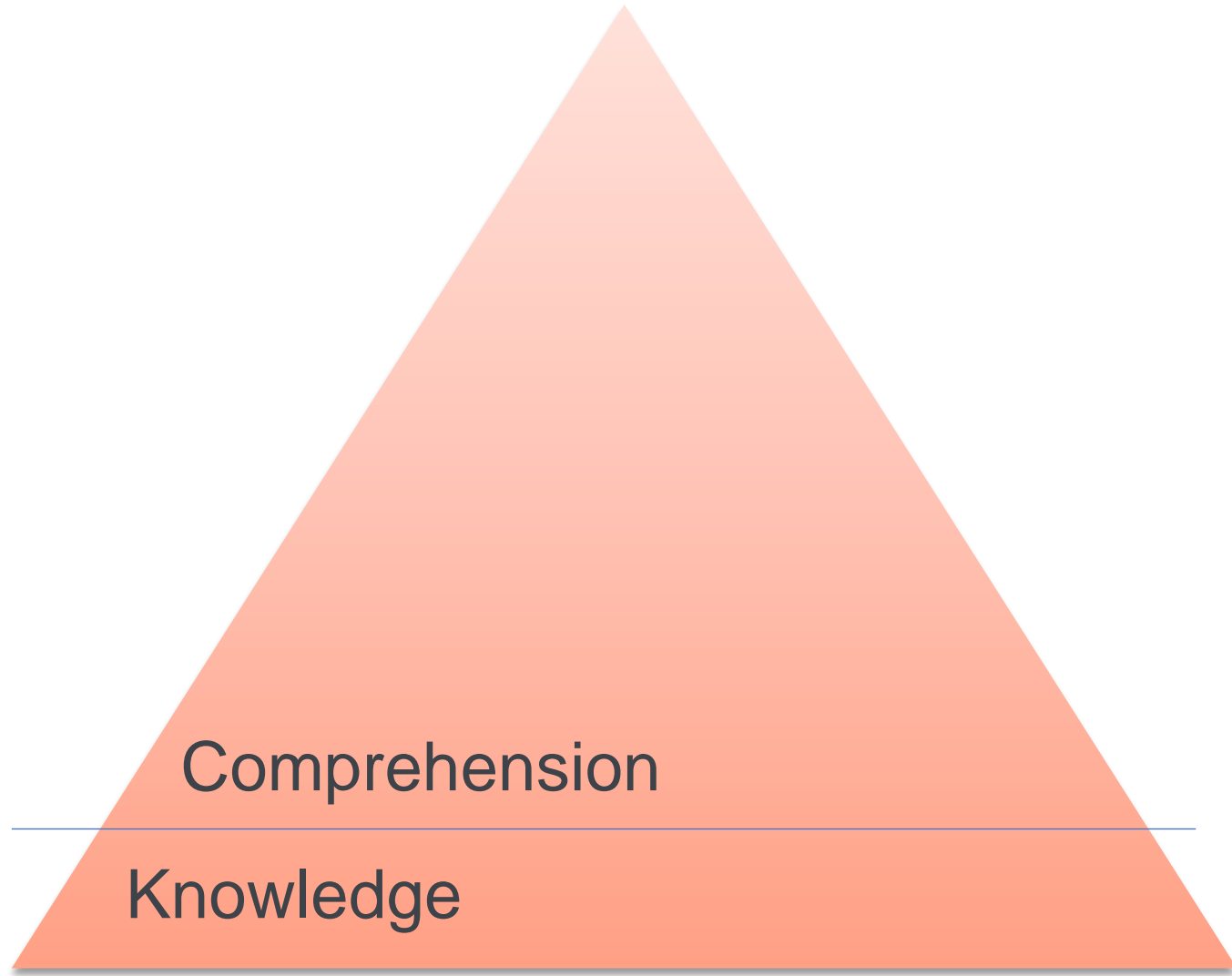
E equals m c squared.

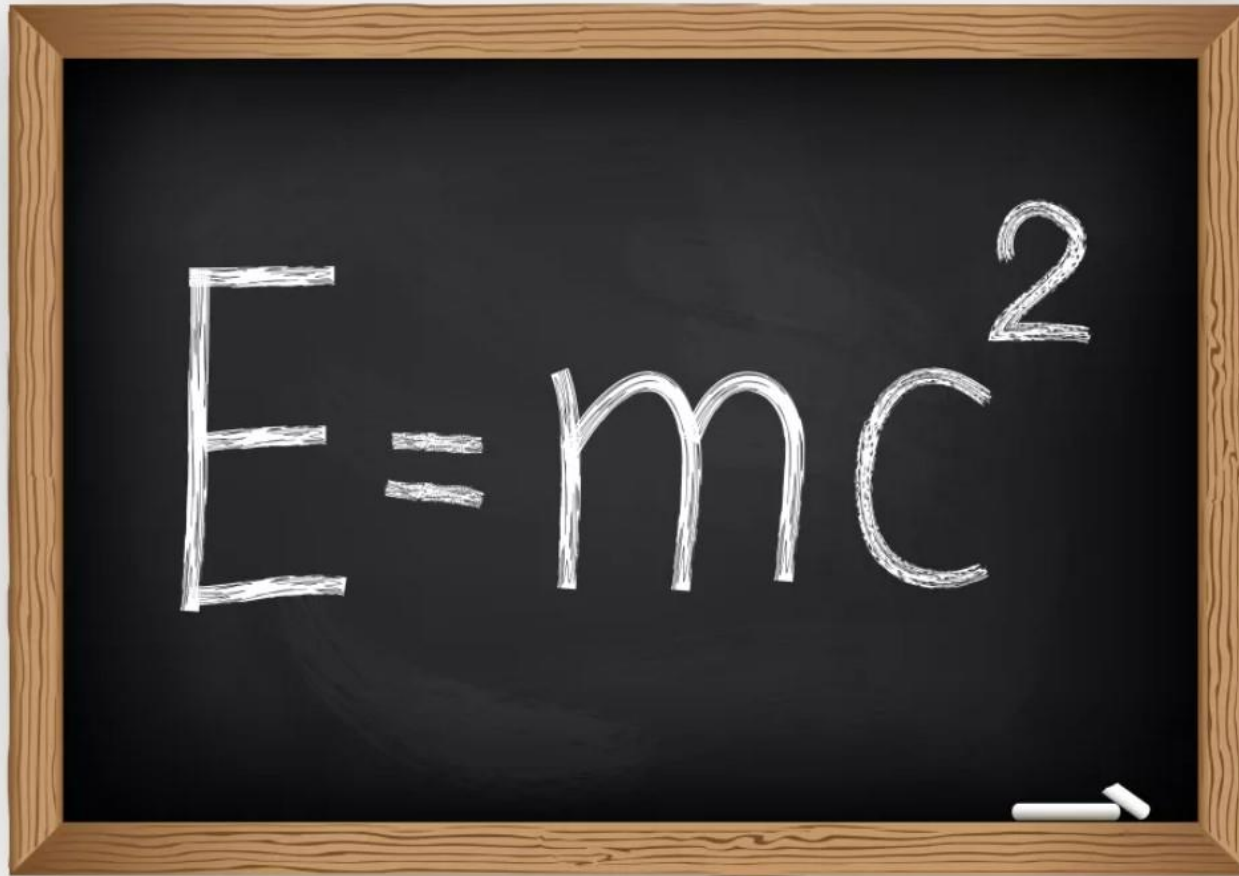


She doesn't have an original thought in her head – she just parrots anything that Sara says.



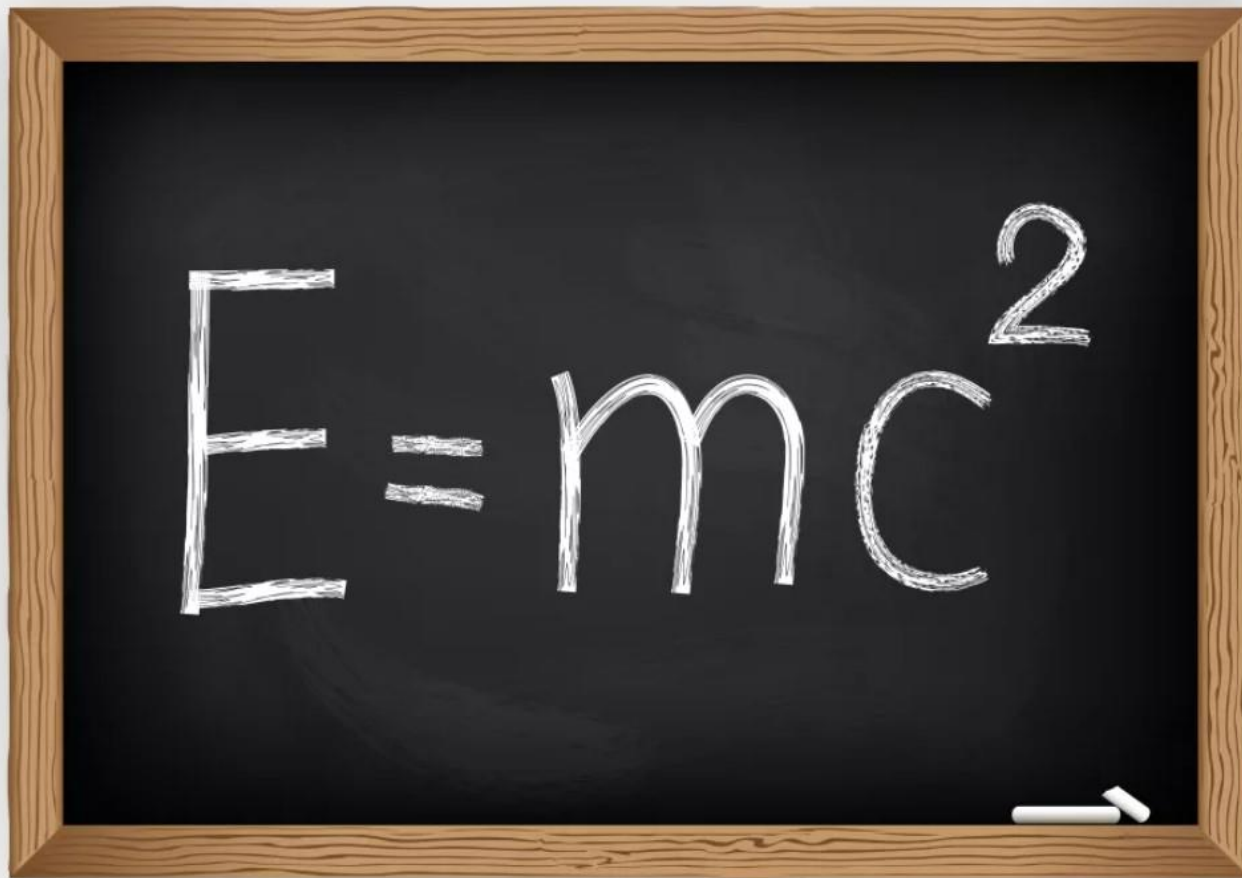
E equals m c squared.





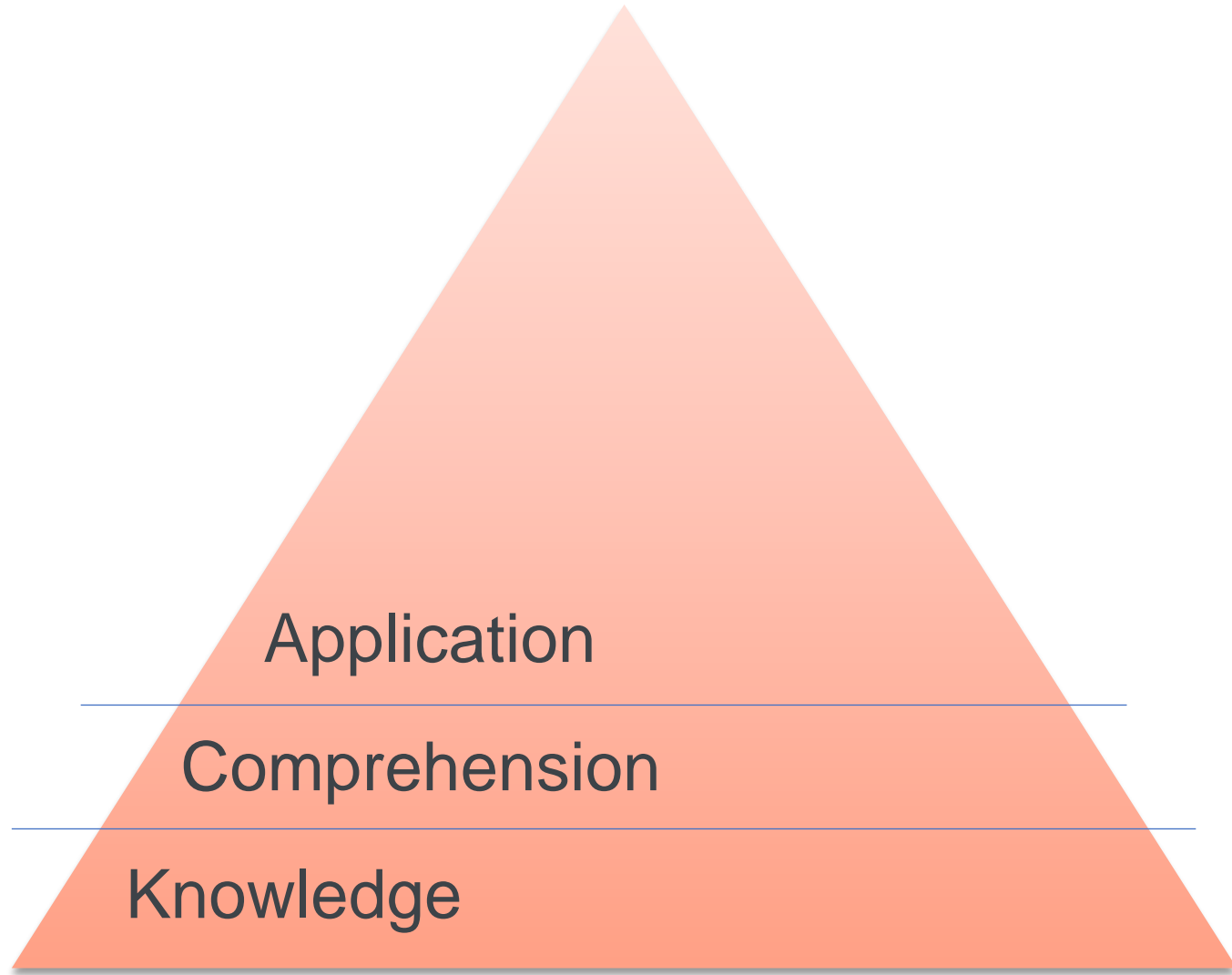
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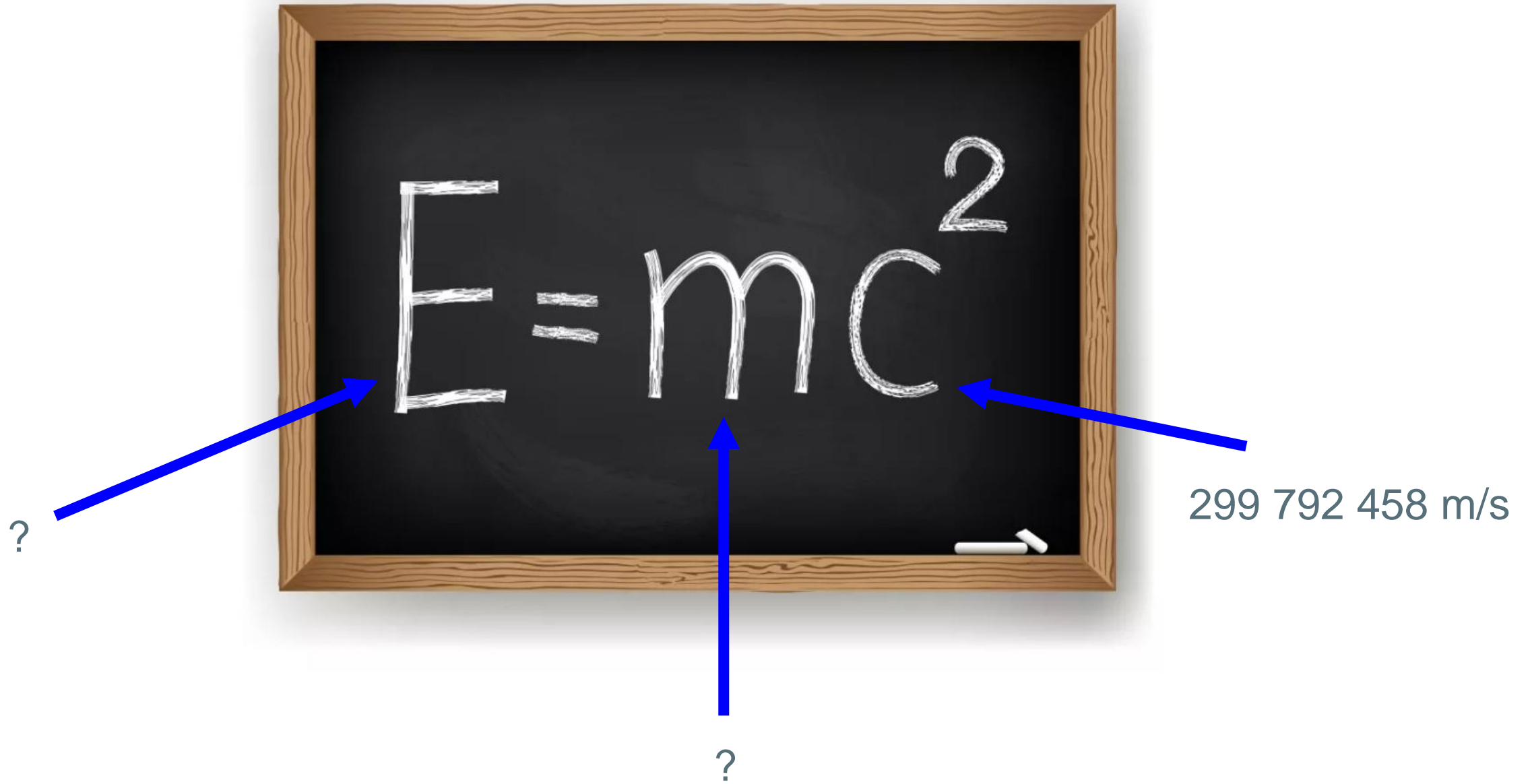
The mass of a body multiplied by the speed of light squared is equal to the kinetic energy of that body.

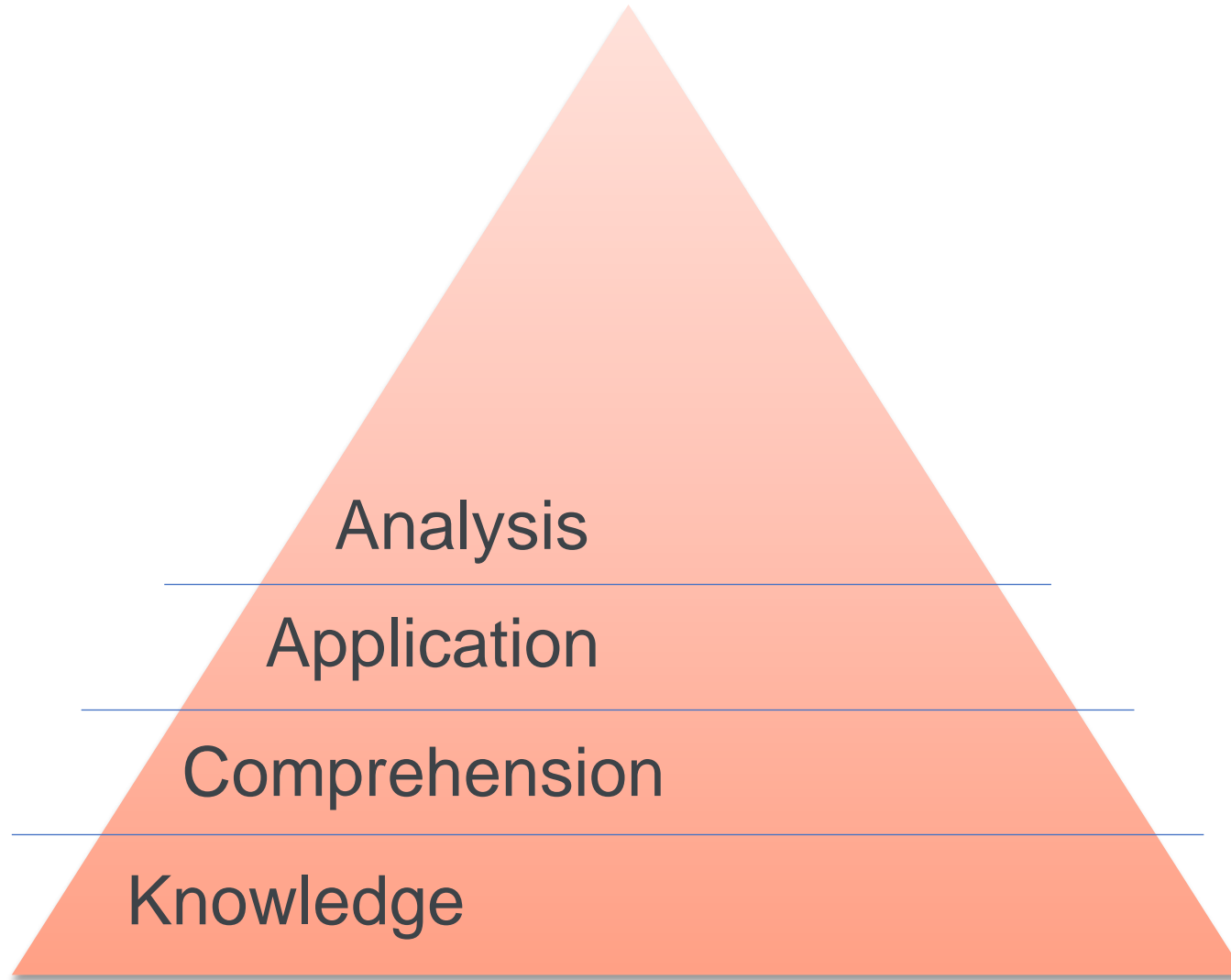


E equals m c squared.

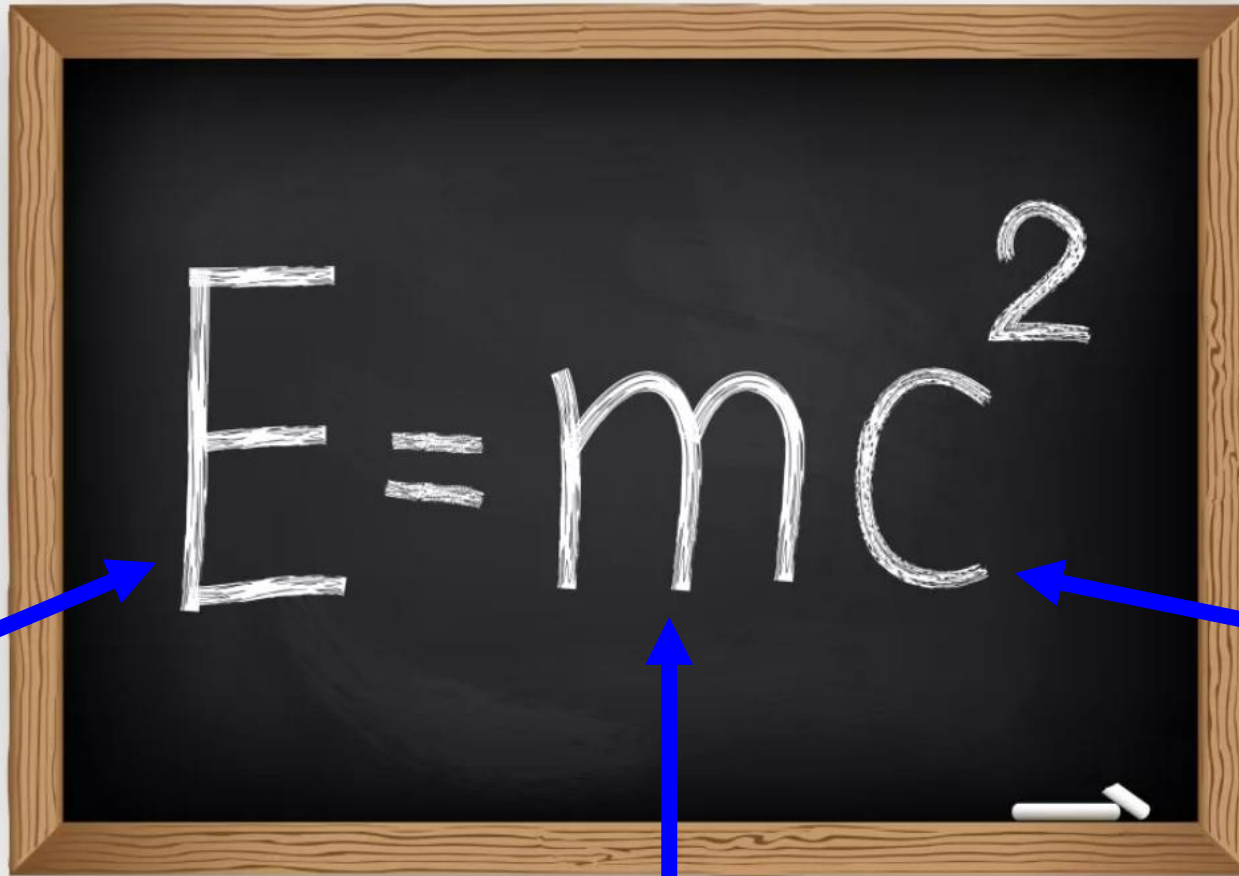
Energy and mass are two forms of the same thing.







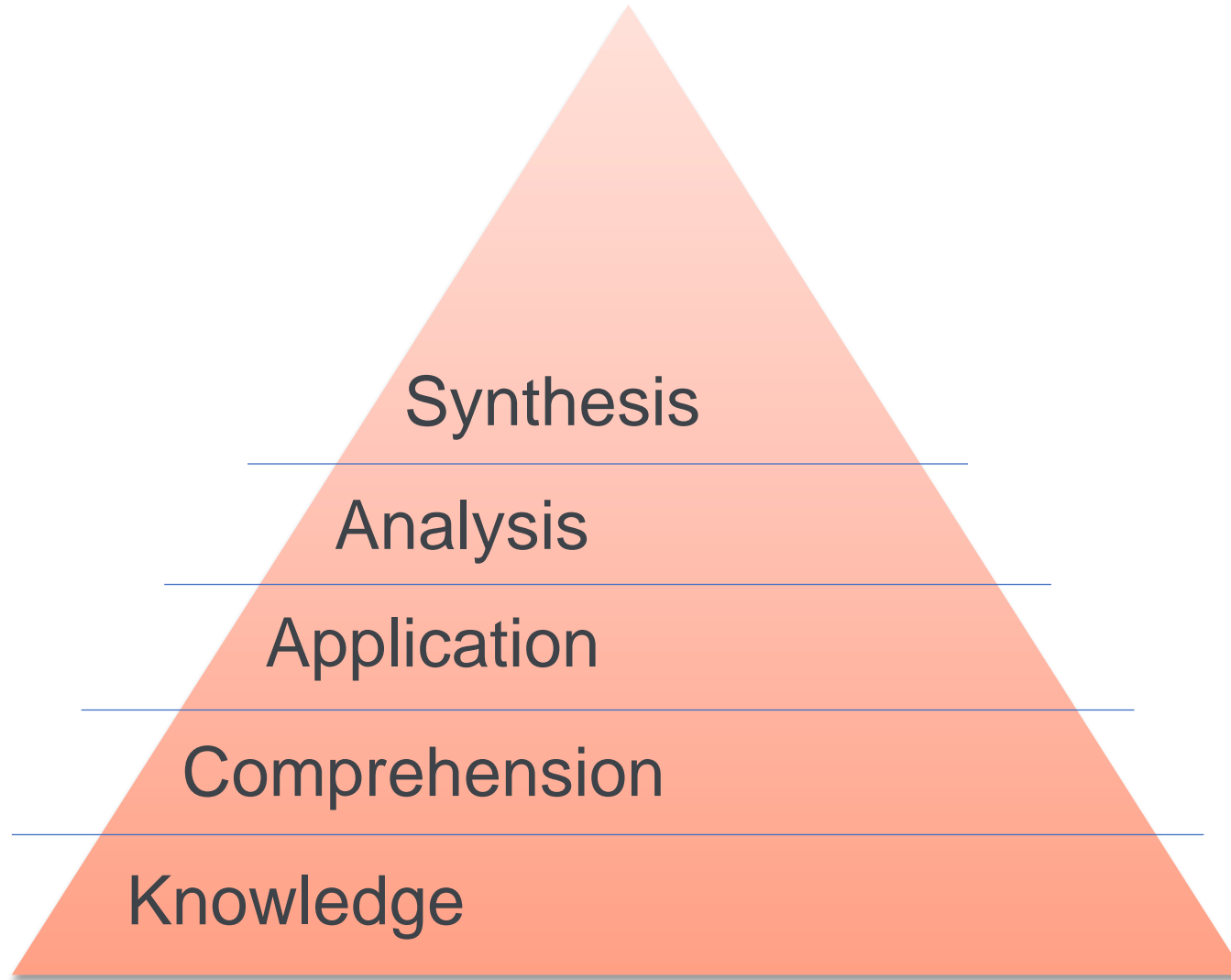
$$m = \frac{E}{c^2}$$

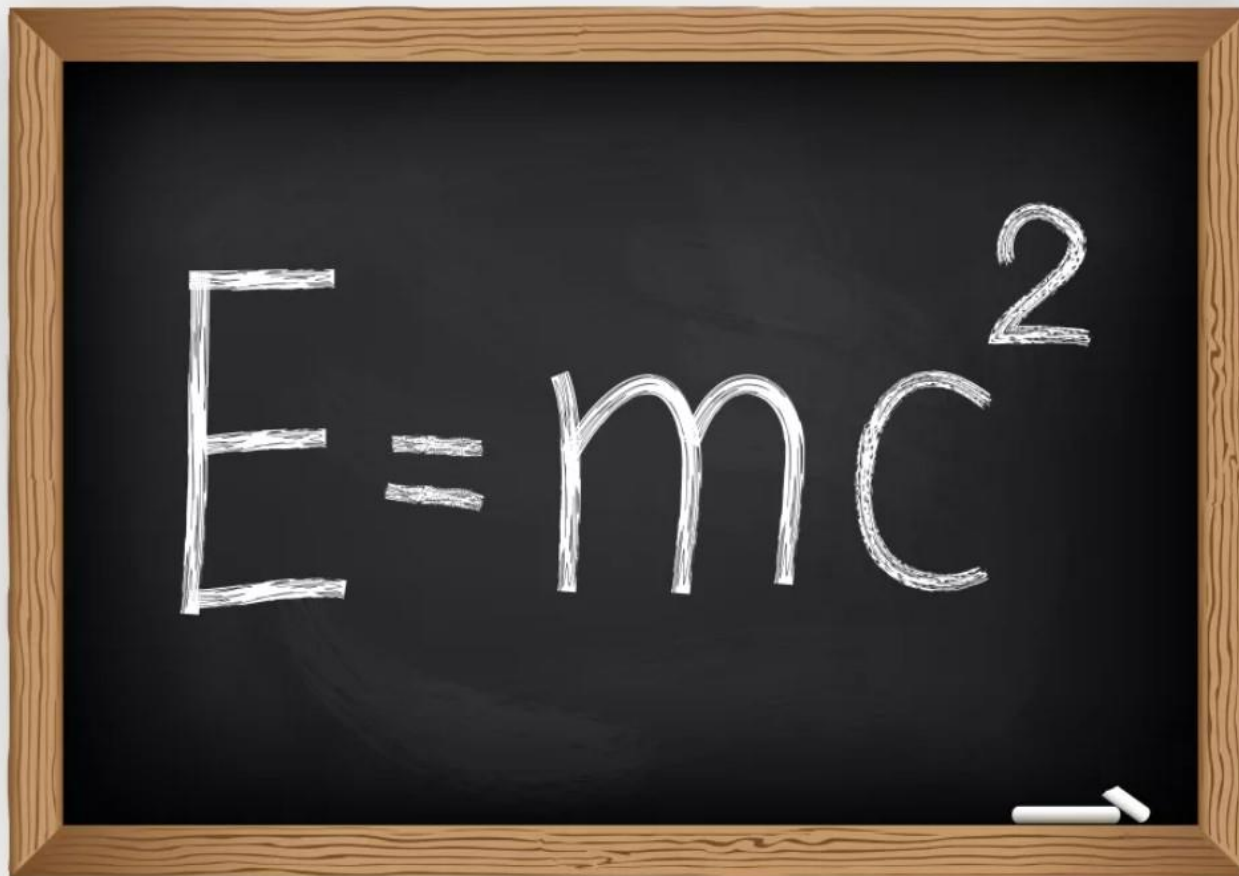


Energy

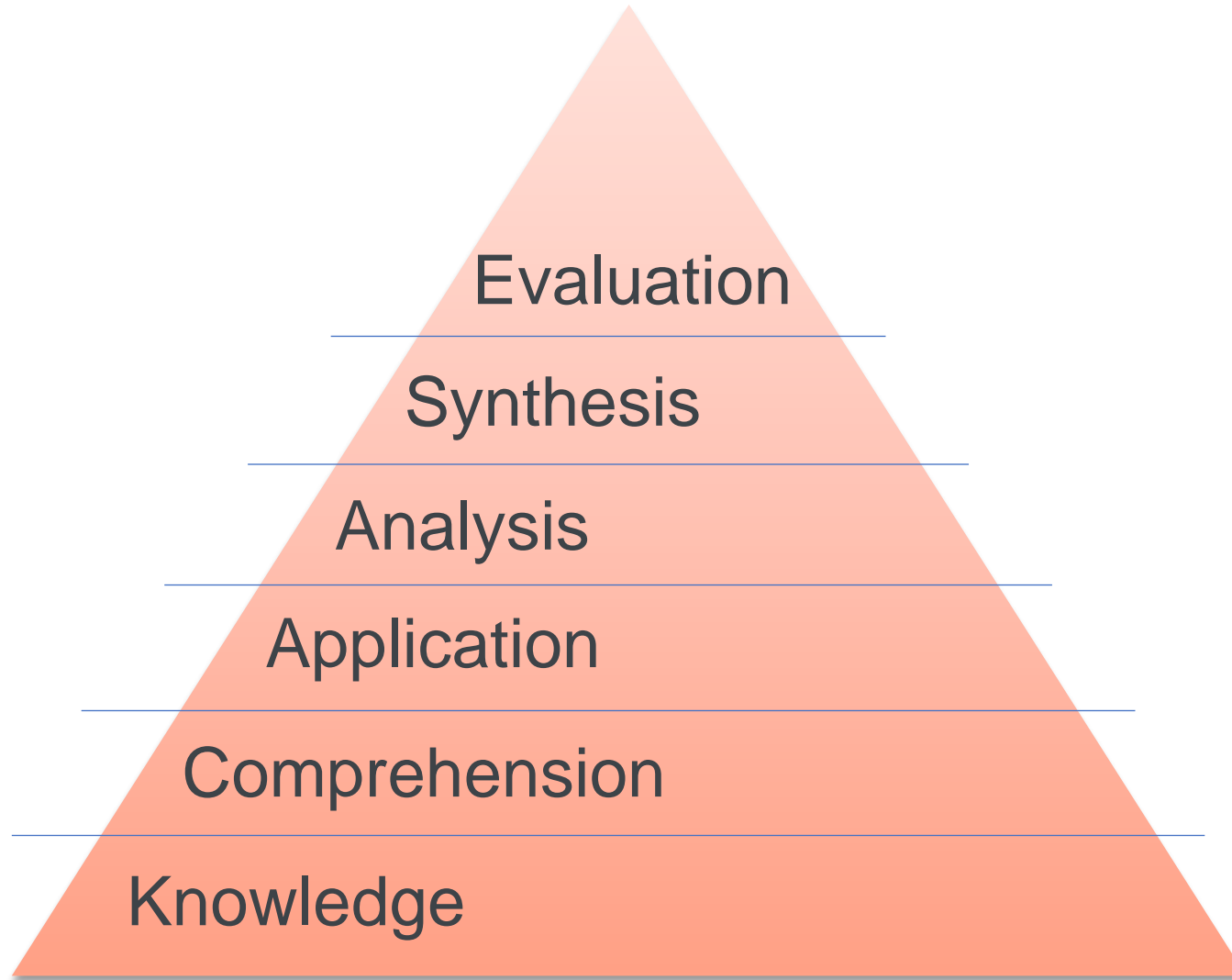
mass

speed
of light





$$dS = \frac{\delta Q}{T}$$





Benjamin Samuel Bloom
educational psychologist
(1913-1999)



List of participants who contributed
to the development of the taxonomy
through attending one or more of the
conferences held from 1949 to 1953

Anderson, Gordon V.
University of Texas

Bloom, Benjamin S.
University of Chicago

Churchill, Ruth
Antioch College

Cronbach, L. J.
University of Illinois

Dahnke, Harold L., Jr.
Michigan State University

Detchen, Lily
Pennsylvania College
for Women

Dressel, Paul L.
Michigan State University

Dyer, Henry S.
Educational Testing Service

Ebel, Robert L.
University of Iowa

Engelhart, Max
Chicago Public Schools

Findley, Warren
Educational Testing Service

Furst, Edward J.
University of Michigan

Gage, N. L.
University of Illinois

Harris, Chester W.
University of Wisconsin

Hastings, J. Thomas
University of Illinois

Heil, Louis M.
Brooklyn College

Hill, Walker H.
Michigan State University

Horton, Clark W.
Dartmouth College

Krathwohl, David R.
Michigan State University

Loree, M. Ray
Louisiana State University

Mayhew, Louis B.
Michigan State University

McGuire, Christine
University of Chicago

McQuitty, John V.
University of Florida

Morris, John B.
University of Mississippi

Plumlee, Lynnette
Educational Testing Service

Pace, C. Robert
Syracuse University

Remmers, H. H.
Purdue University

Stern, George G.
Syracuse University

Sutton, Robert B.
Ohio State University

Thiede, Wilson
University of Wisconsin

Travers, Robert M.
Human Resources Research Center
San Antonio, Texas

Tyler, Ralph W.
Center for Advanced Study in the Behavioral Sciences
Stanford, California

Warrington, Willard G.
Michigan State University

*Watt, Rex
University of Southern California

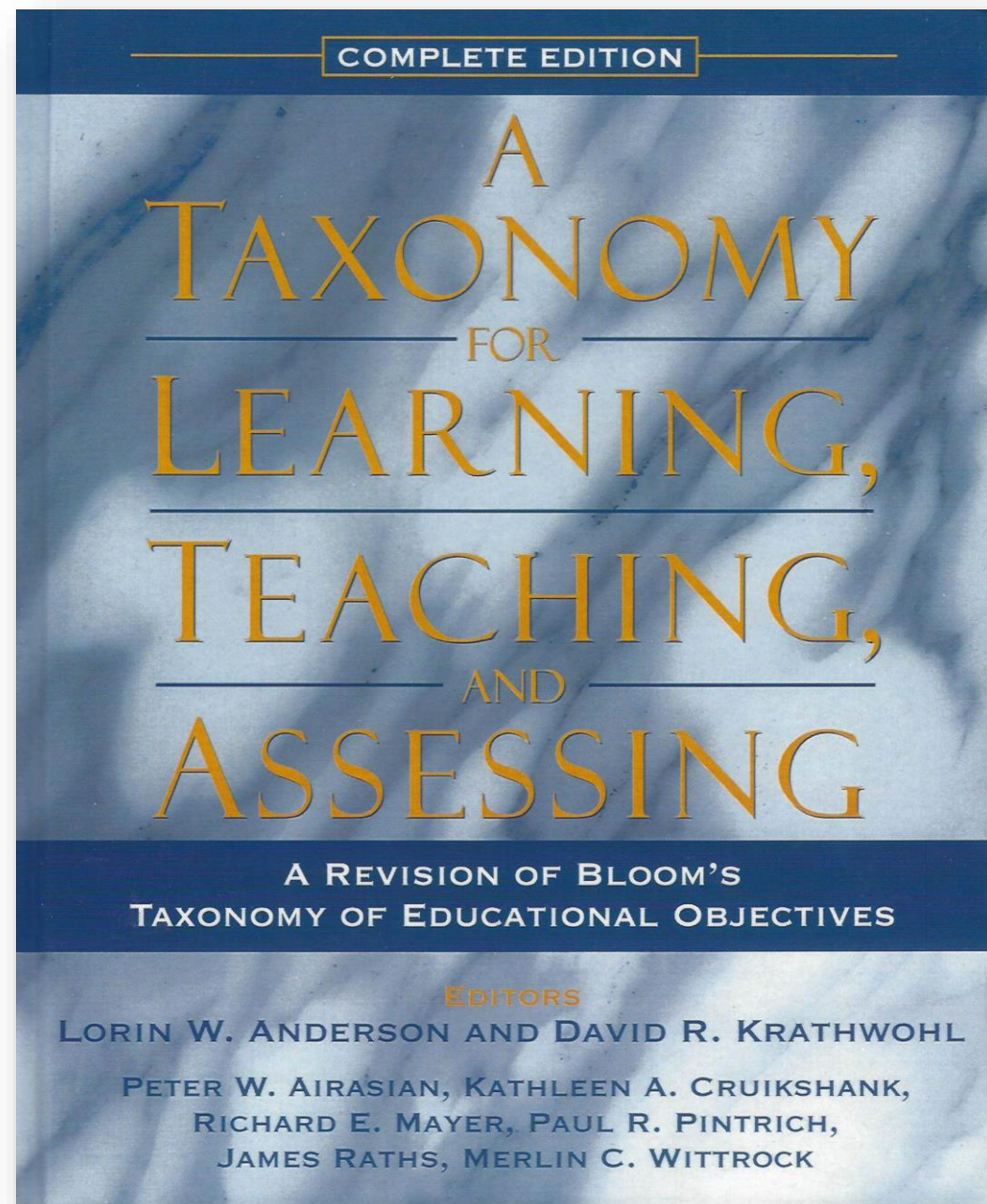
TAXONOMY
OF
EDUCATIONAL OBJECTIVES
The Classification of Educational Goals
HANDBOOK 1 : COGNITIVE DOMAIN

by
A Committee of College
and University Examiners

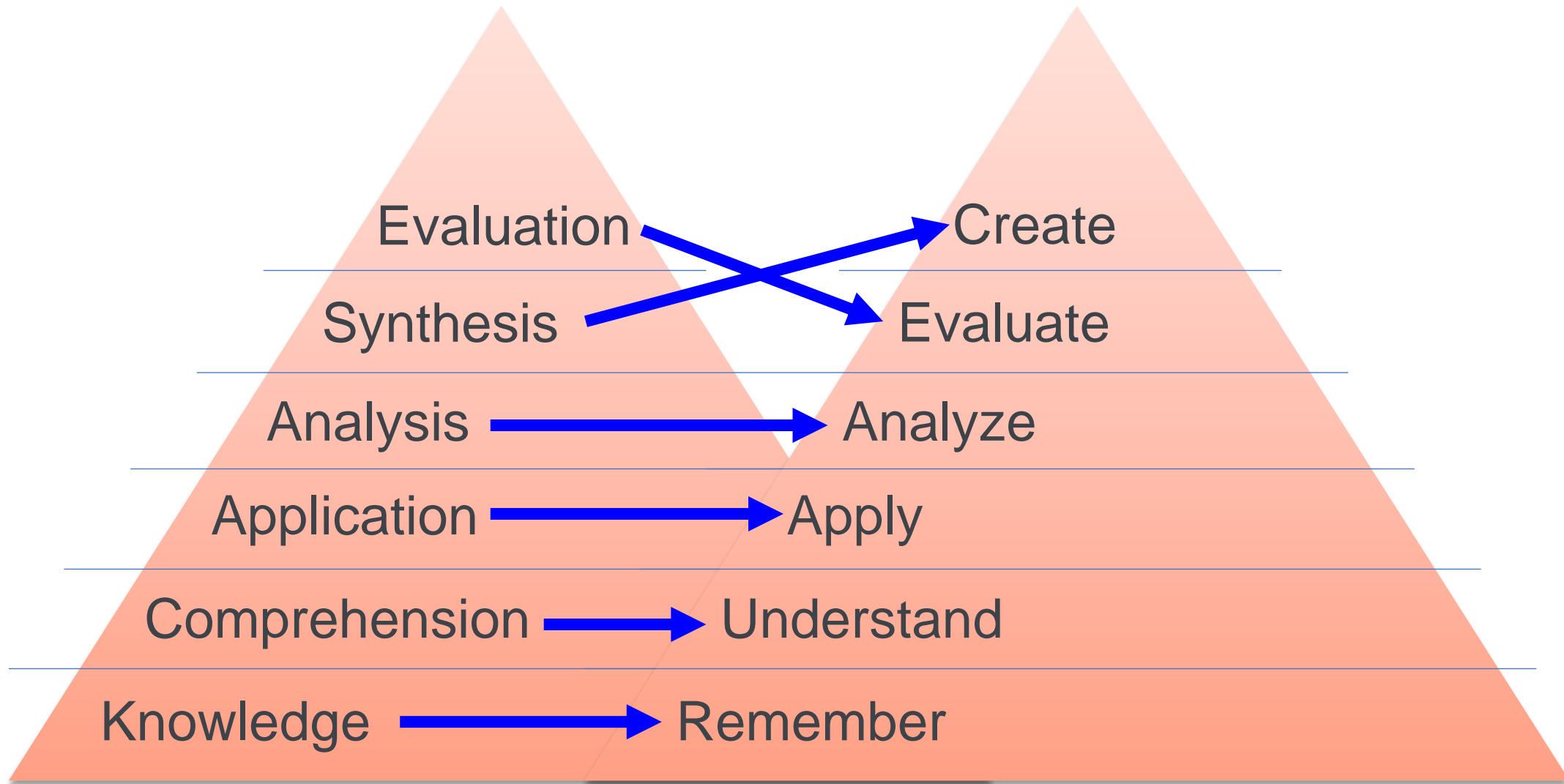
BENJAMIN S. BLOOM, Editor
Max D. Engelhart Walker H. Hill
Edward J. Furst David R. Krathwohl

DAVID McKAY COMPANY, INC.
NEW YORK

1956



2001



1956

2001

1.00 Knowledge

1.10 Knowledge of specifics

1.20 Knowledge of ways and means of dealing with specifics

1.30 Knowledge of the universals and abstractions in a field

1.31 Knowledge of principles and generalizations

1.32 Knowledge of theories and structures

2.00 Comprehension

3.00 Application

4.00 Analysis

5.00 Synthesis

6.00 Evaluation

The Knowledge Dimension	The Cognitive Process Dimension						Anderson et al., 2001	
	1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create		
A. Factual Knowledge								
B. Conceptual Knowledge								
C. Procedural Knowledge								
D. Meta-Cognitive Knowledge								

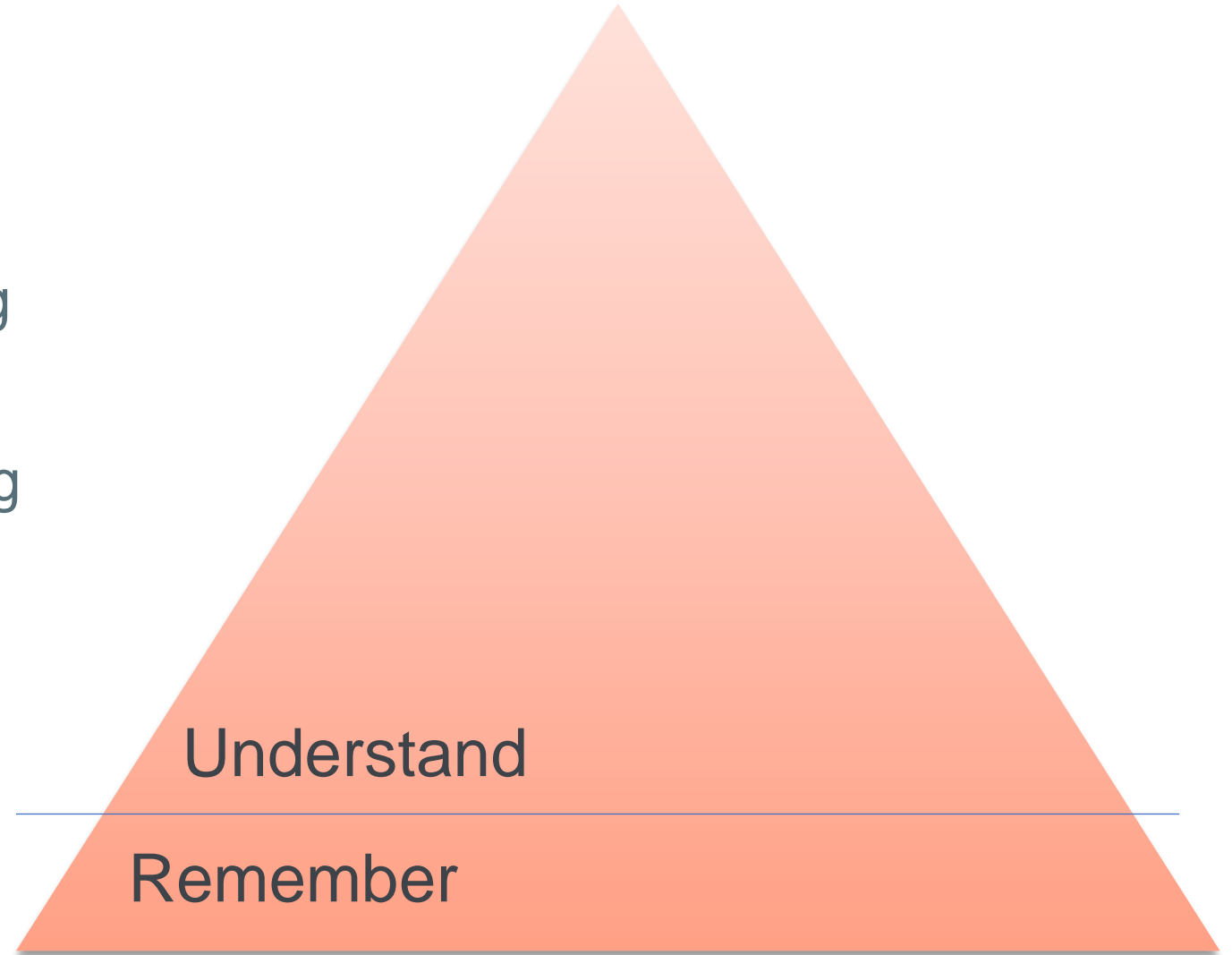
Why Bloom's Taxonomy?

- “to facilitate communication among examiners” (Bloom et al., 1956, p. 4)
- “framework is intended to help teachers teach, learners learn, and assessors assess” (Anderson et al., 2001, p. 89)

Why Bloom's Taxonomy?

The government responded to the reduced revenue and financial challenges for bars and restaurants by introducing the scheme 'The Eat Out to Help Out' to support businesses reopening following the first COVID-19 lockdown. The Scheme aimed to help protect jobs in the hospitality sector by encouraging consumers to eat out. According to Hutto (2020) 'The scheme boosted customer demand for eating out on the Scheme days in August. However, dining-out dropped from mid-September as restrictions were re-imposed on hospitality venues'. Although it is clear how Covid 19 has negatively affected bars and

- Interpreting
- Exemplifying
- Classifying
- Summarising
- Inferring
- Comparing
- Explaining



- Recognising
- Recalling

Clarifying, paraphrasing, representing, translating

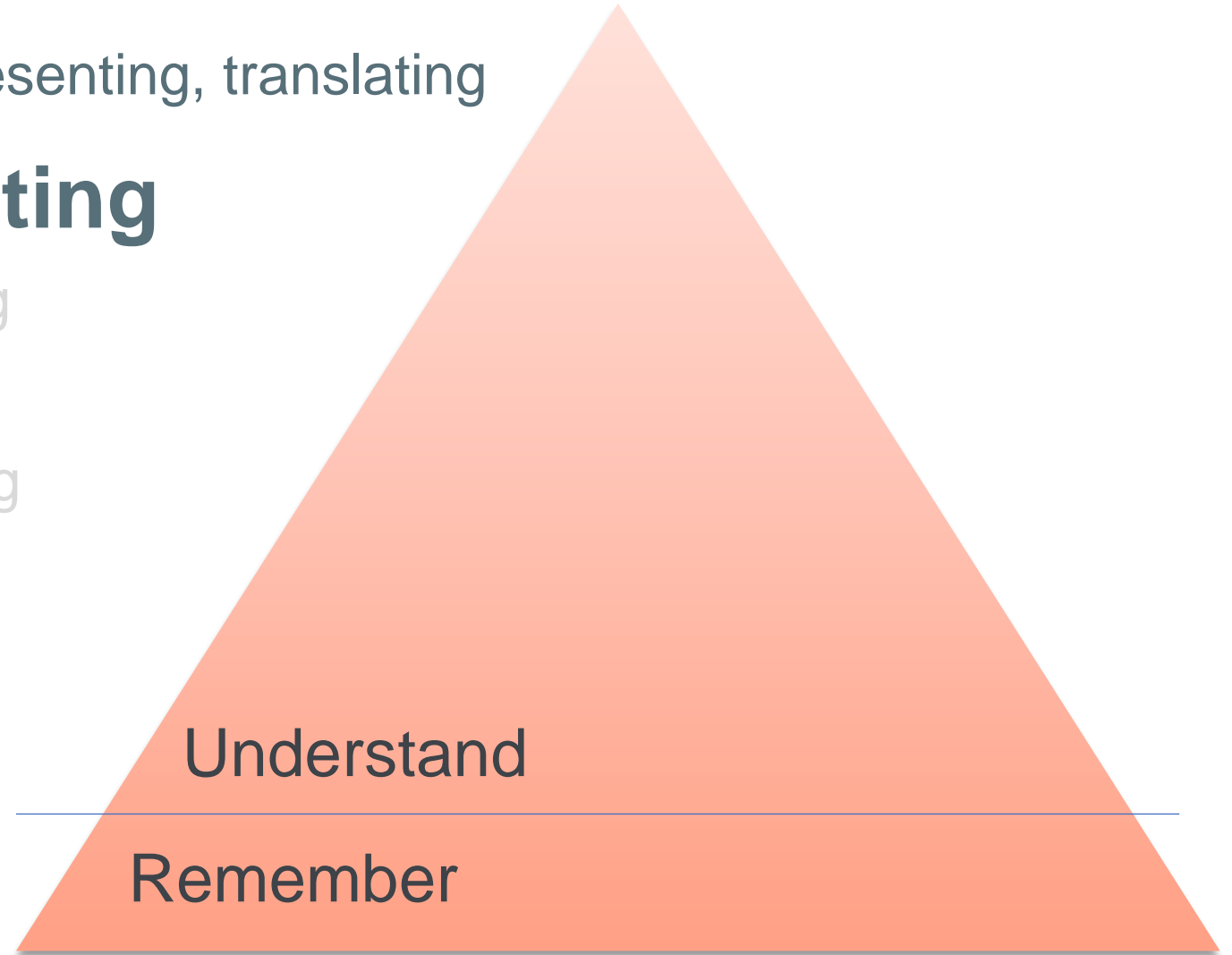
→ Interpreting

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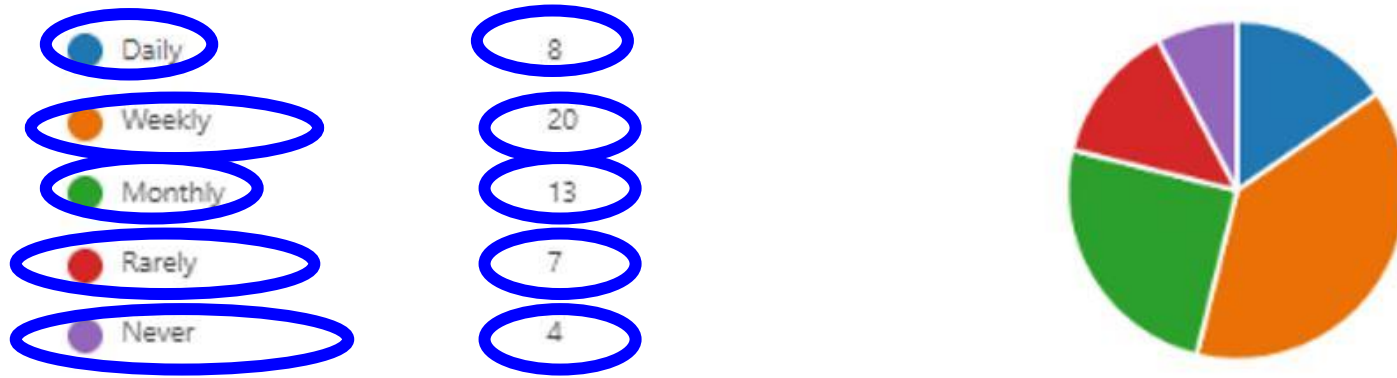
Understand

Remember

- Recognising
- Recalling

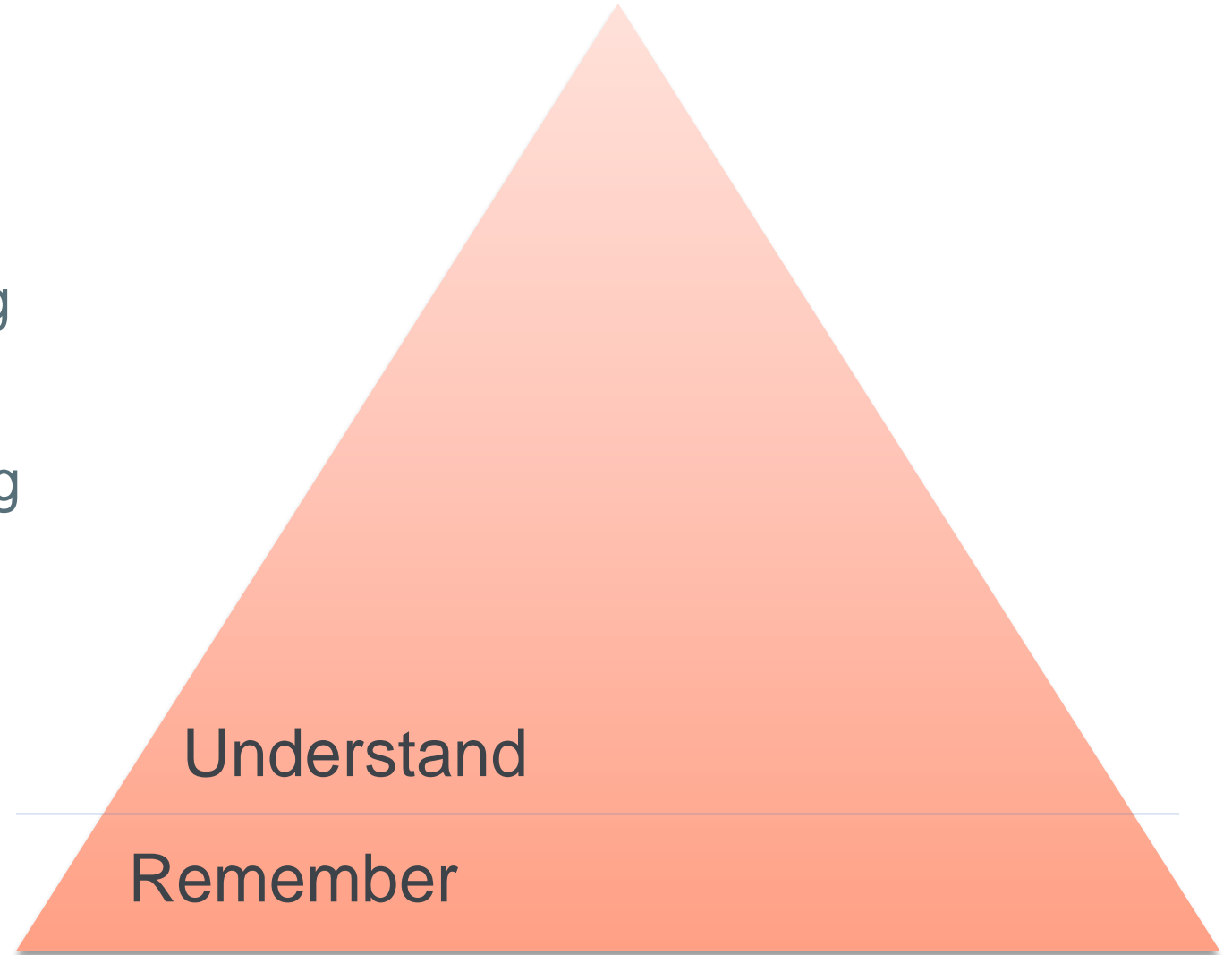


3. How often do you interact with Nestle UK's Digital platform (eg; website,mobile app,online store)



As shown in question 3, Respondents' various engagement patterns are seen in the frequency of their interactions with Nestle UK's digital platforms. The graph shows that Eight people out of 52 participants demonstrate a high degree of engagement on a daily basis with the organisation, highlighting the platform's regular value in their lives. Around 20 responders show their participation once a week, suggesting it is a regular engagement all month long. Furthermore, 13 participants choose to connect on a monthly basis, indicating a more sporadic use of Nestle UK's digital products. Interestingly, 4 respondents indicate no engagement at all, indicating very little digital presence, while 7 respondents engage infrequently indicating sporadic usage. Nestle UK may use this wide range of contact frequencies to understand better how to customise and improve their digital platforms to meet the requirements and tastes of their broad user base.

- Interpreting
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Abstracting a general theme or major points

- Interpreting
- Exemplifying
- Classifying

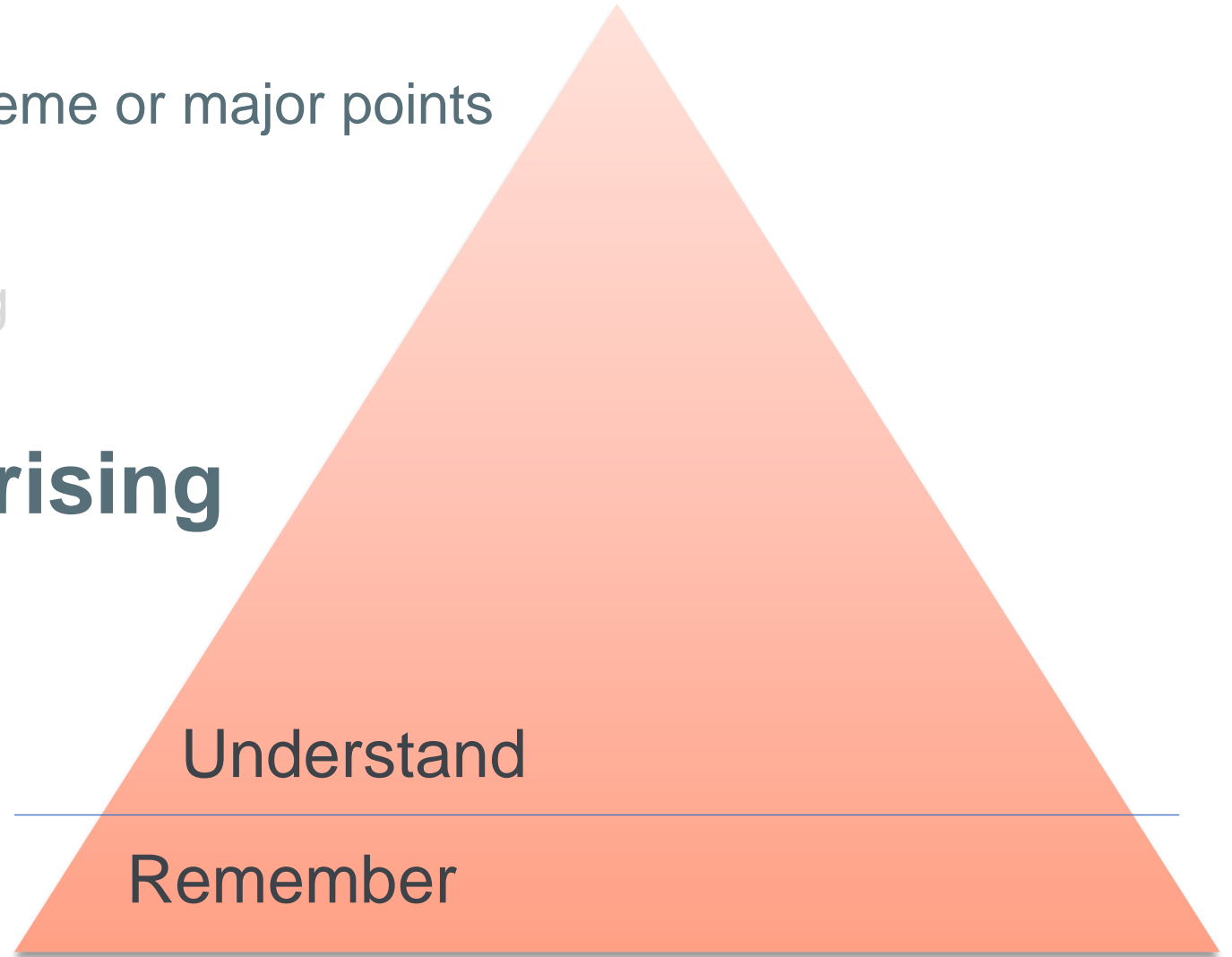
→ **Summarising**

- Inferring
- Comparing
- Explaining

Understand

Remember

- Recognising
- Recalling



There are several ways that researchers have described organizational culture. Organizational culture is described by Schein (1984) as "a pattern of common fundamental beliefs that a group discovered as it dealt with its problems with external adjusting and internal cohesion, which has worked sufficiently effectively to be regarded valid, along with consequently, to be imparted by prospective participants as a proper way to perceive and express oneself with respect to those problems." In a similar vein, Cameron and Quinn (2011) define corporate culture as "the set of key principles, convictions, and mindsets that are held common by those in the organization and that shape the way they act and behave." Organizational culture is described by Deal and Kennedy (1982) as "the way things occur around here." These concepts emphasize how organizational culture is shared and how it affects how people behave and think inside a company.

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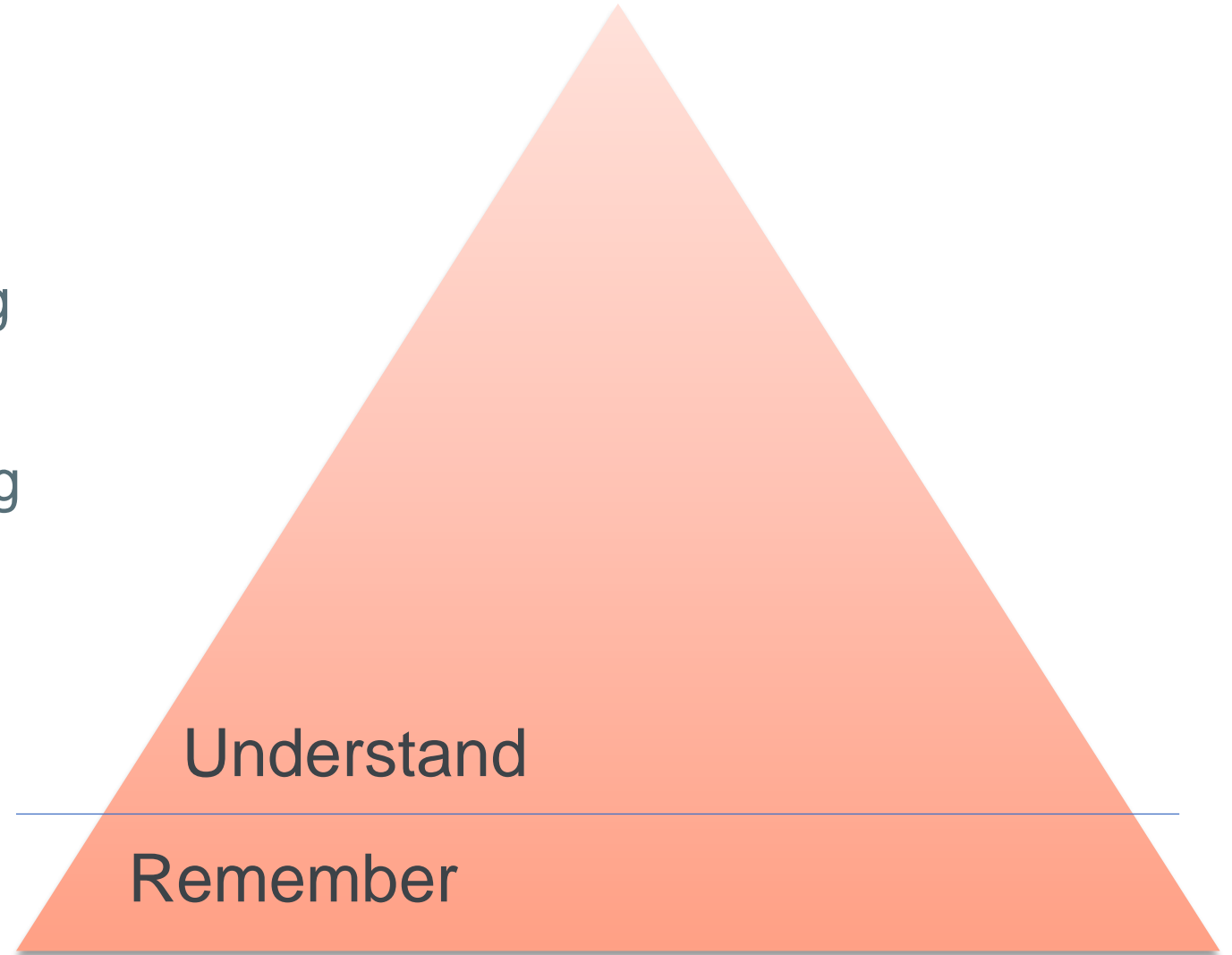
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- Interpreting
- Exemplifying
- Classifying
- Summarising
- Inferring
- Comparing
- Explaining



- Recognising
- Recalling

Contrasting, mapping, detecting correspondences
between ideas/objects

→ Interpreting

→ Exemplifying

→ Classifying

→ Summarising

→ Inferring

→ **Comparing**

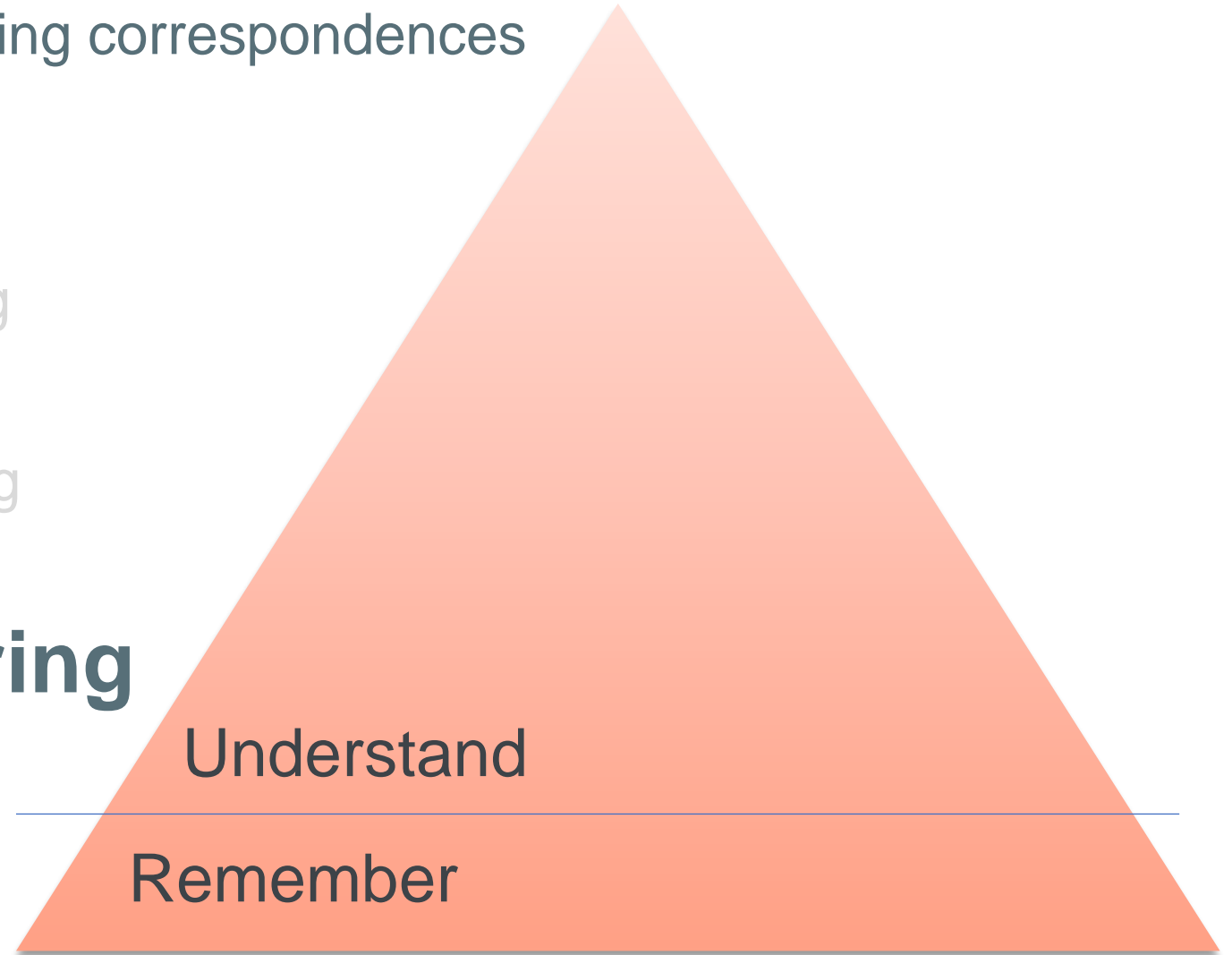
→ Explaining

Understand

Remember

→ Recognising

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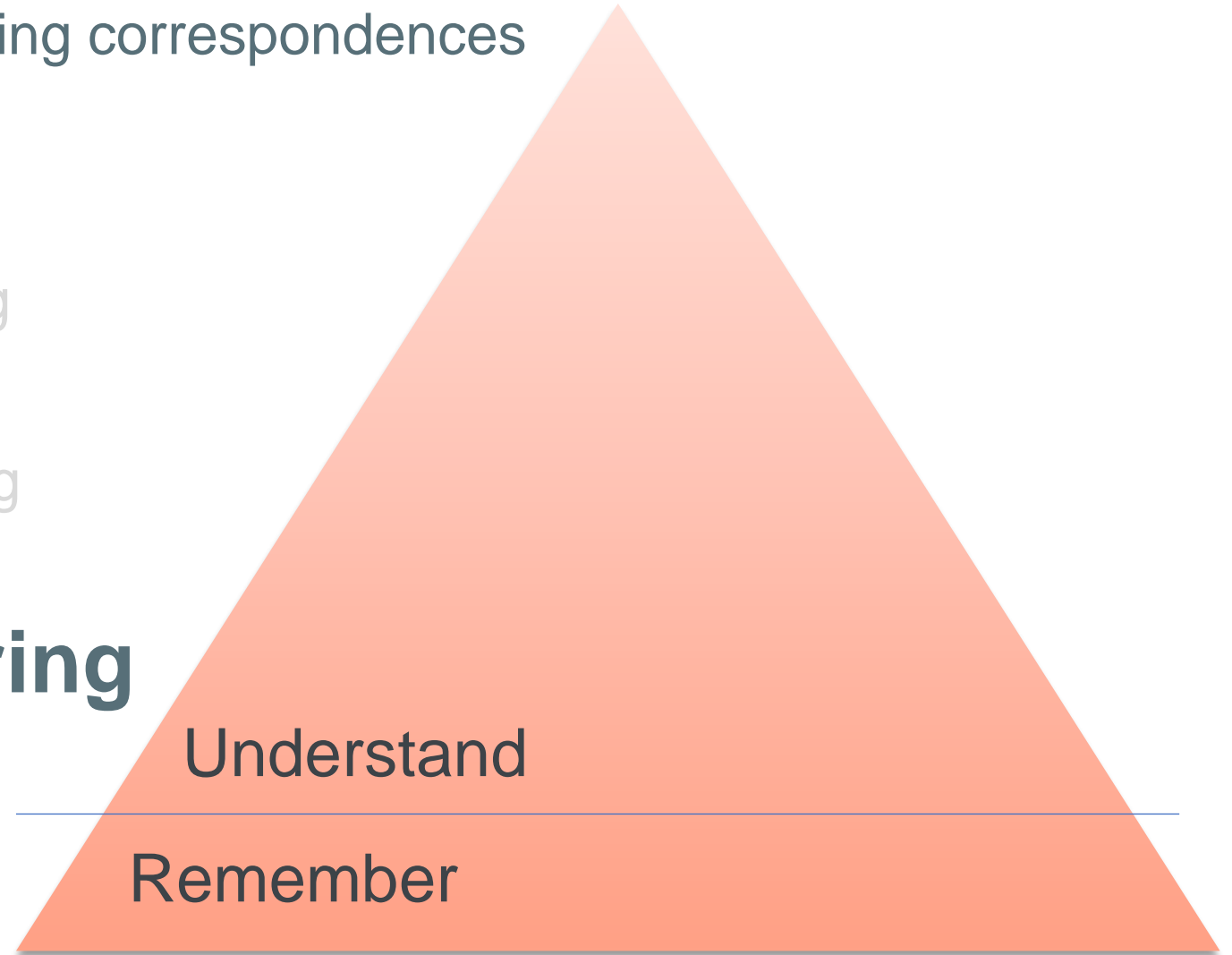
→ Explaining

Understand

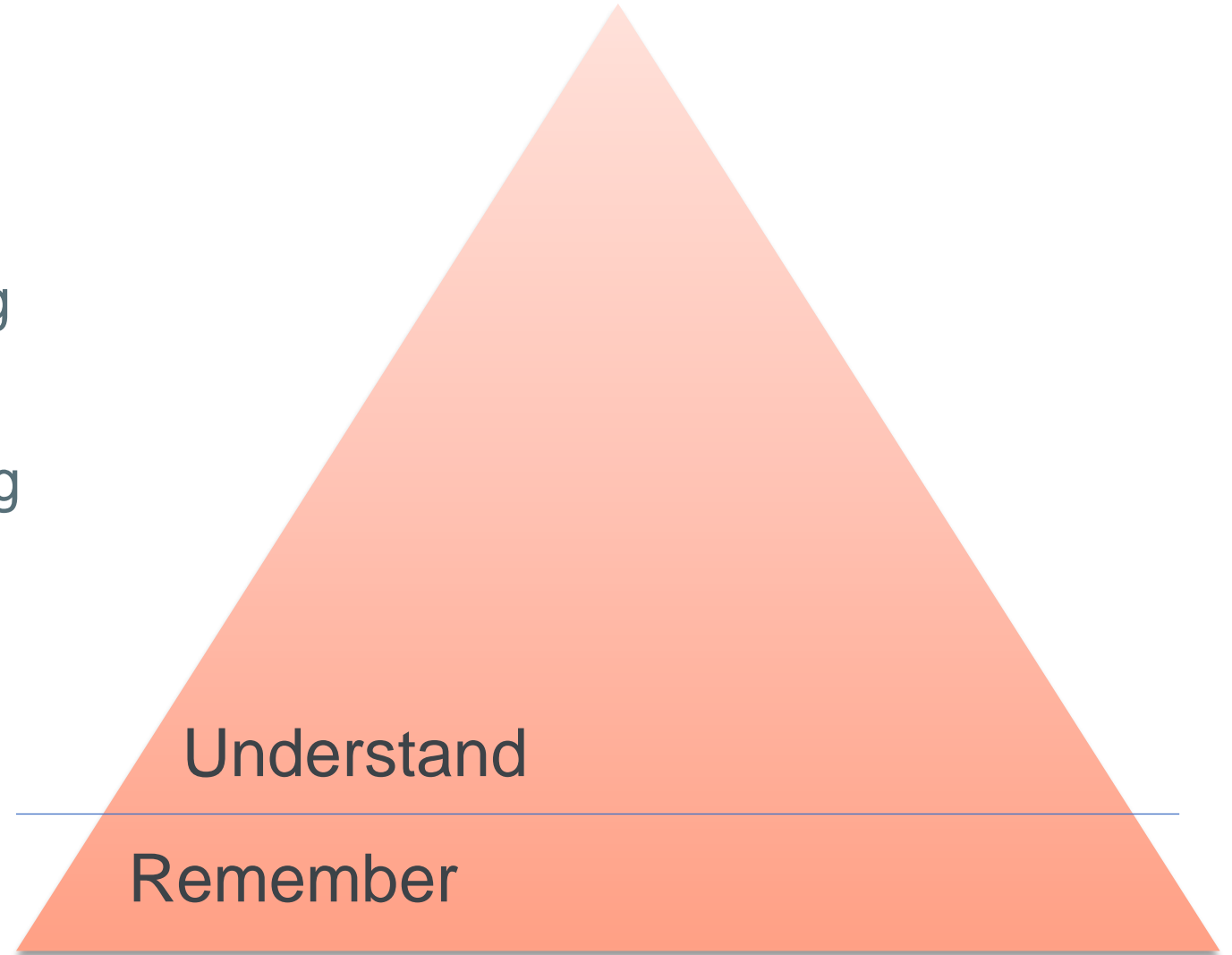
Remember

→ Recognising

→ Recalling



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Here's what's wrong with Bloom's Taxonomy (Berger, 2018)

- False vision of learning
- Learning is not a hierarchy or a linear process
- Mistaken impression that these cognitive processes are discrete, that it's possible to perform one of these skills separately from others
- “*Understand* is believed to be more cognitively complex than *Remember*, *Apply* is believed to be more cognitively complex than *Understand*, and so on” (Anderson et al., 2001, p. 5)
- “to *understand procedural knowledge* is a prerequisite to being able to *apply procedural knowledge*” (Anderson et al., 2001, p. 77)

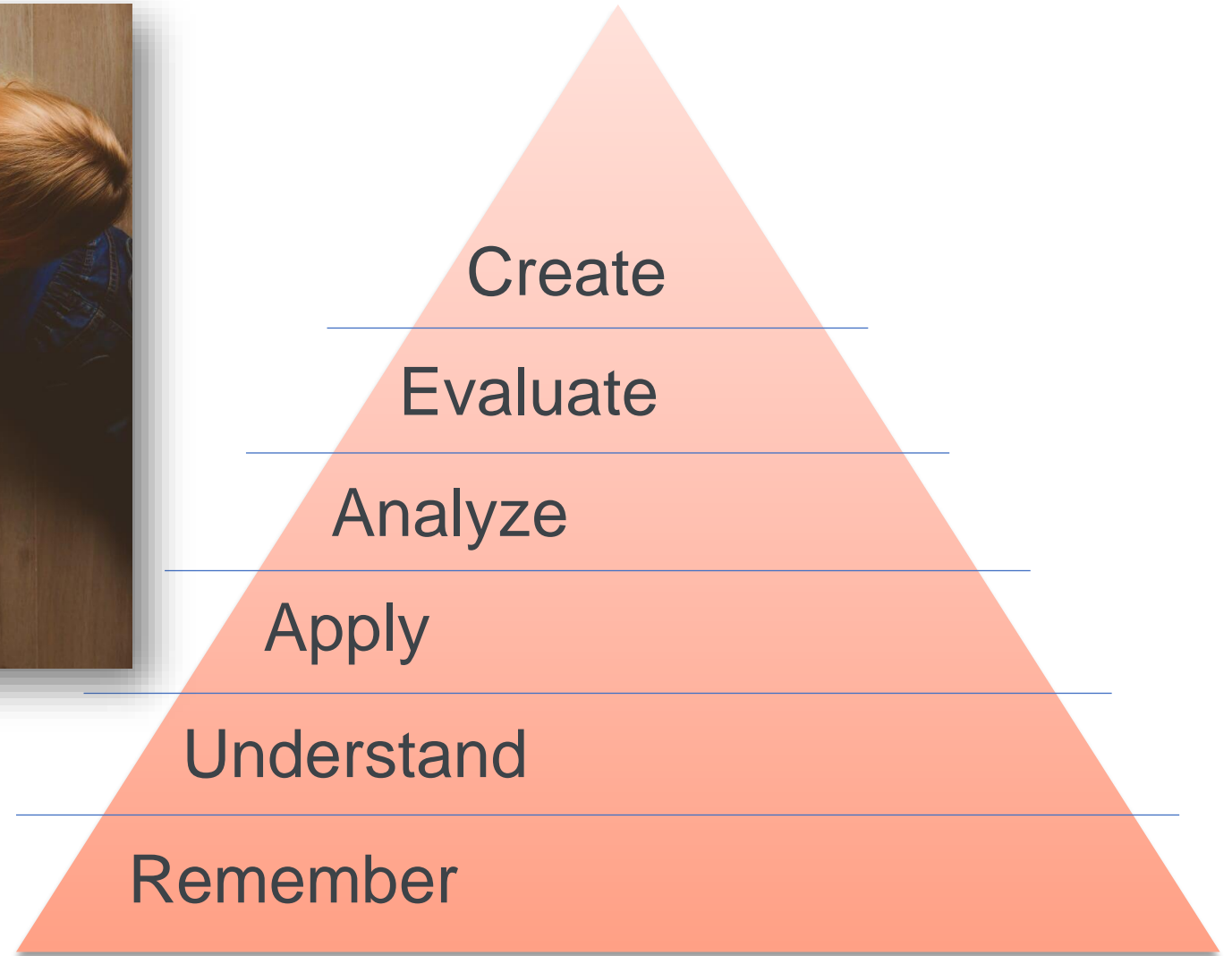
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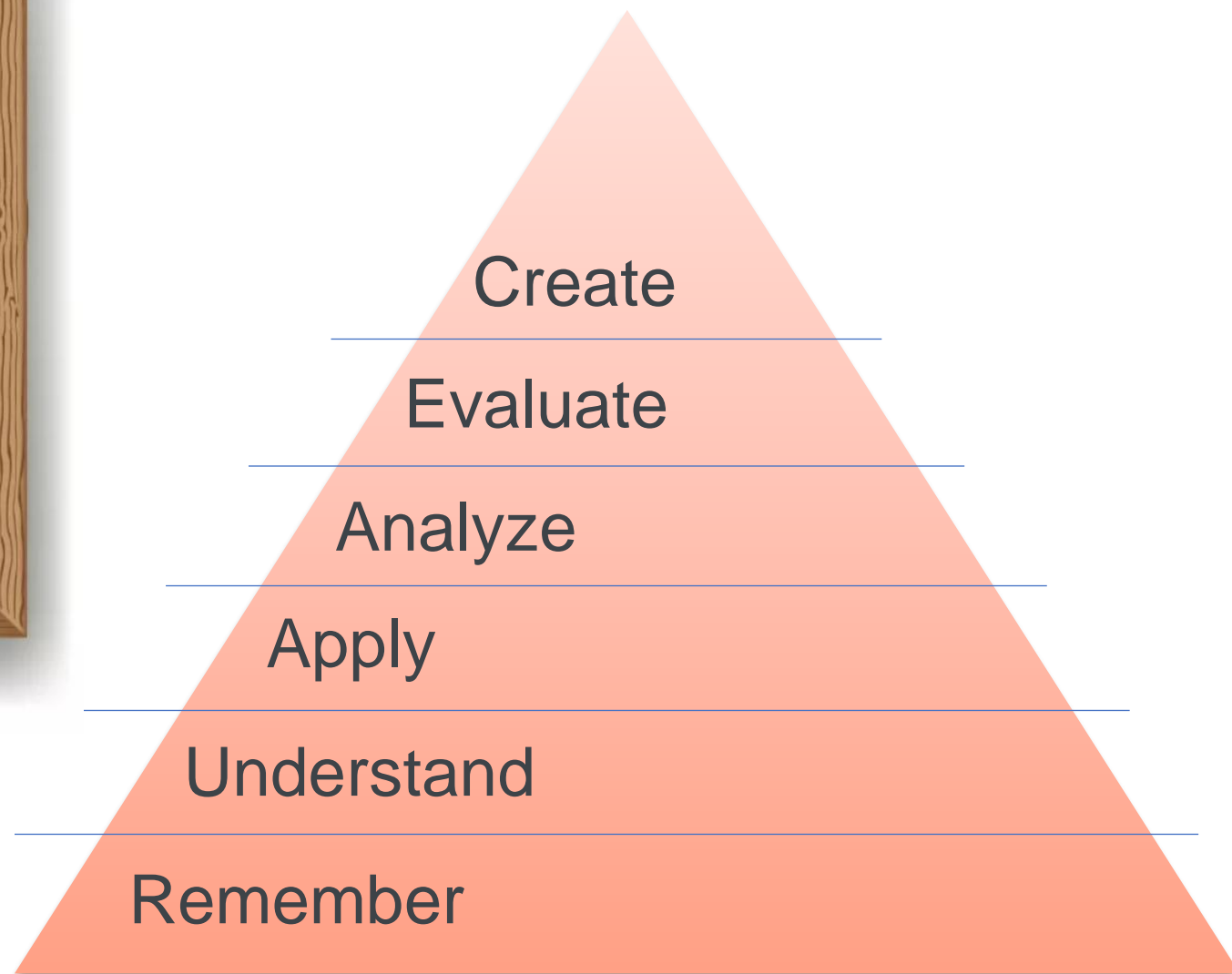
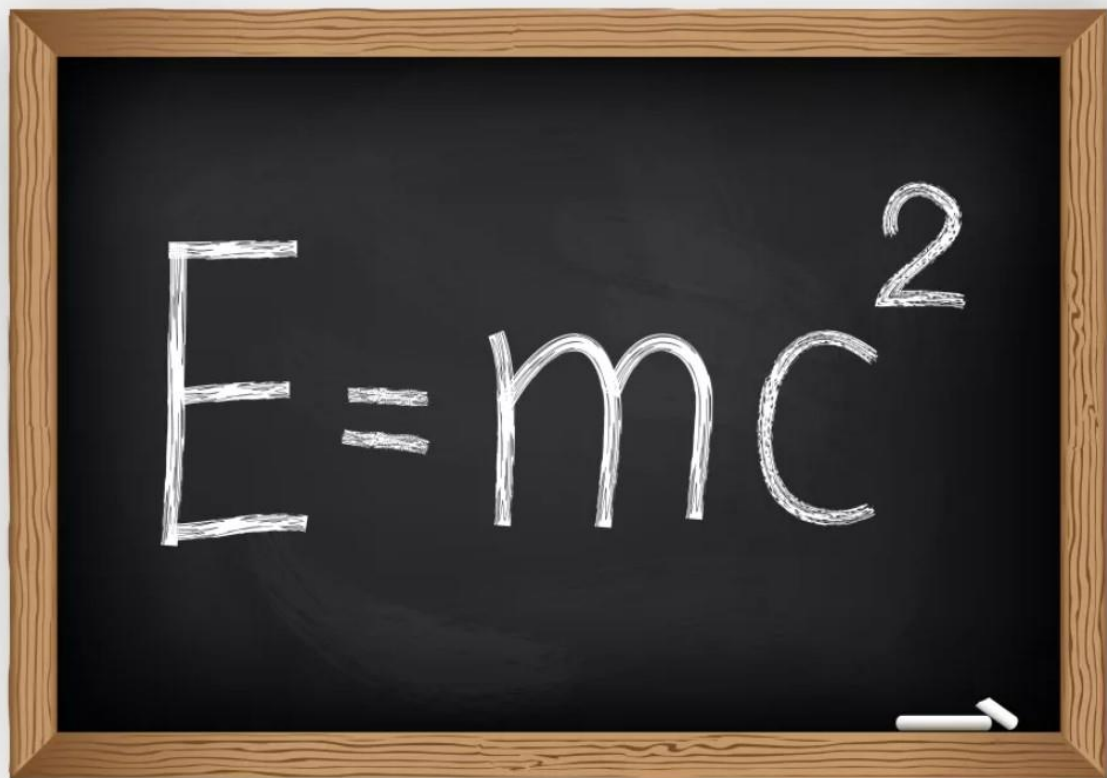
- False vision of learning
- Learning is not a hierarchy or a linear process
- Mistaken impression that these cognitive processes are discrete, that it's possible to perform one of these skills separately from others
- “*understanding underlying conceptual knowledge* helps one to *remember factual knowledge*” (Anderson et al., 2001, p. 170)
- “*Analyse, Evaluate, and Create* activities . . . increase students’ *Understanding*” (Anderson et al., 2001, p. 234)

Here's what's wrong with Bloom's Taxonomy (Berger, 2018)

- False vision of learning
- Learning is not a hierarchy or a linear process
- Mistaken impression that these cognitive processes are discrete, that it's possible to perform one of these skills separately from others
- “evaluative process will in some cases be the prelude to the acquisition of new knowledge, a new attempt at comprehension or application, or a new analysis and synthesis” (Bloom et al., 1956, p. 185)
- “categories do not form a hierarchy” (Anderson et al., 2001, p. 309)
- “the six categories are allowed to overlap” (Anderson et al., 2001, p. 309)







- What are your experiences with Bloom's Taxonomy?
- Should Bloom's Taxonomy be taught to students?
- Do you have a good understanding of Bloom's Taxonomy skills?
- Which Bloom's Taxonomy skill do you see as the most important?

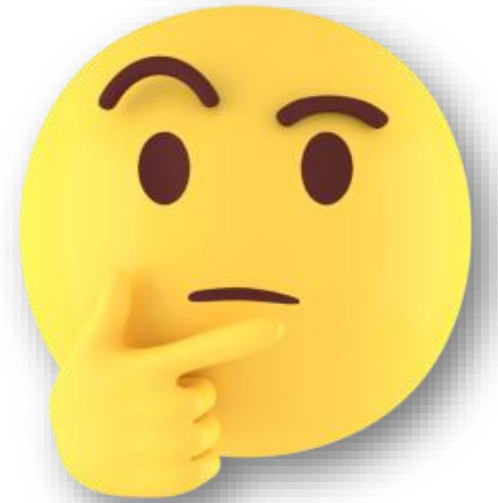


→ What are your experiences with Bloom's Taxonomy?

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→ What are your experiences with Bloom's Taxonomy?

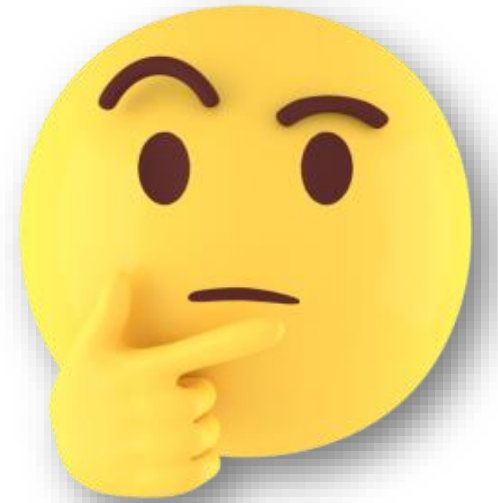
→ **Should Bloom's Taxonomy be taught to students?**

→ Do you have a good understanding of Bloom's Taxonomy skills?

→ Which Bloom's Taxonomy skill do you see as the most important?

→ Implicit vs explicit

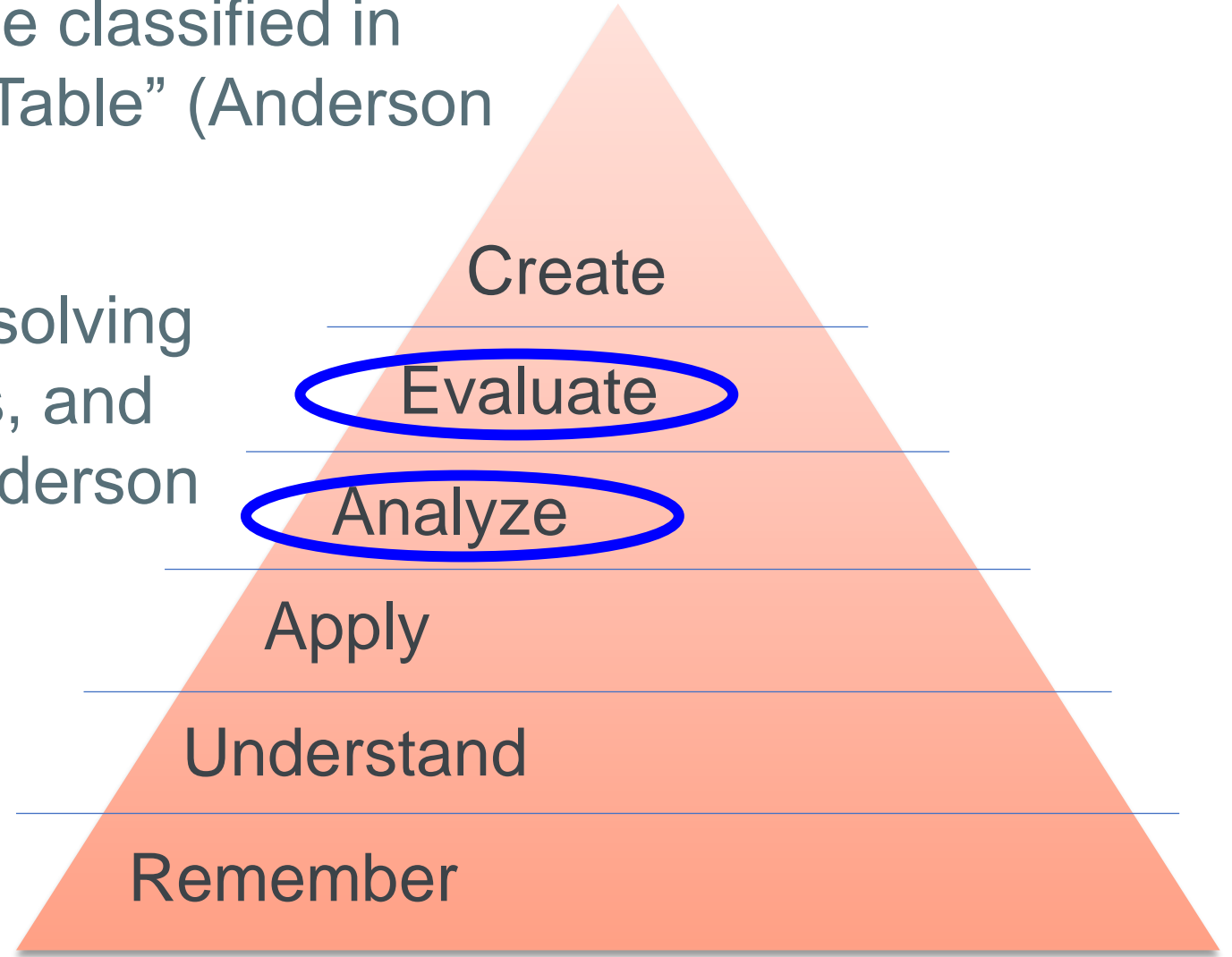
→ Bloom's taxonomy vs critical thinking



→ “problem solving and critical thinking . . . include a variety of activities that might be classified in disparate cells of the Taxonomy Table” (Anderson et al., 2001, p. 311)

→ “critical thinking and problem solving tend to cut across rows, columns, and cells of the Taxonomy Table” (Anderson et al., 2001, p. 312)

→ “critical thinking and problem solving did not seem to be prime substitutes for any single category in the framework (Anderson et al., 2001, p. 312)



→ What are your experiences with Bloom's Taxonomy?

→ **Should Bloom's Taxonomy be taught to students?**

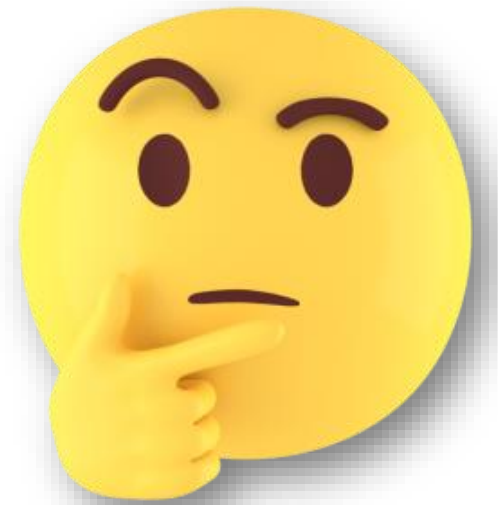
→ Do you have a good understanding of Bloom's Taxonomy skills?

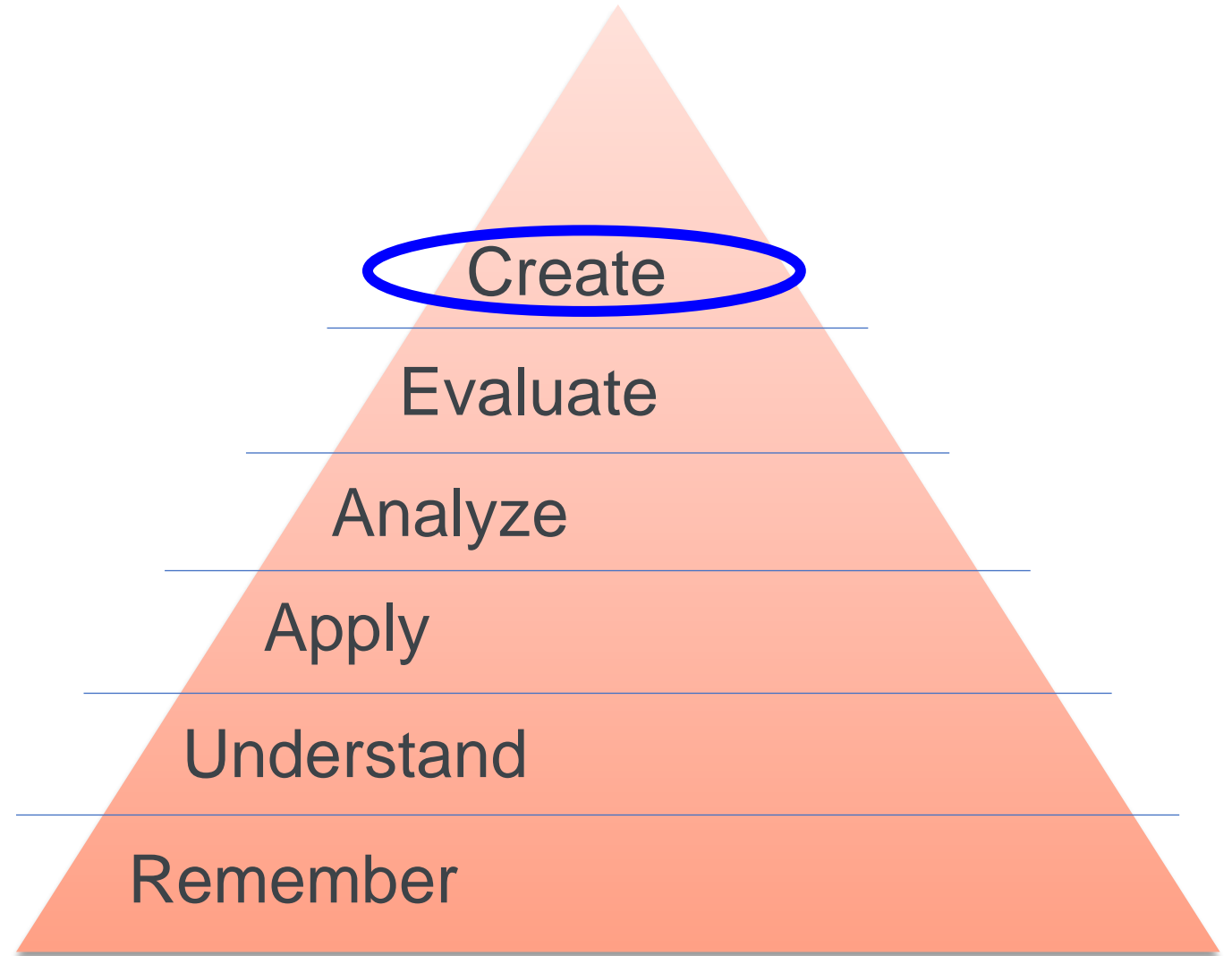
→ Which Bloom's Taxonomy skill do you see as the most important?

→ Implicit vs explicit

→ Bloom's taxonomy vs critical thinking

→ Clear expectations





→ What are your experiences with Bloom's Taxonomy?

→ **Should Bloom's Taxonomy be taught to students?**

→ Do you have a good understanding of Bloom's Taxonomy skills?

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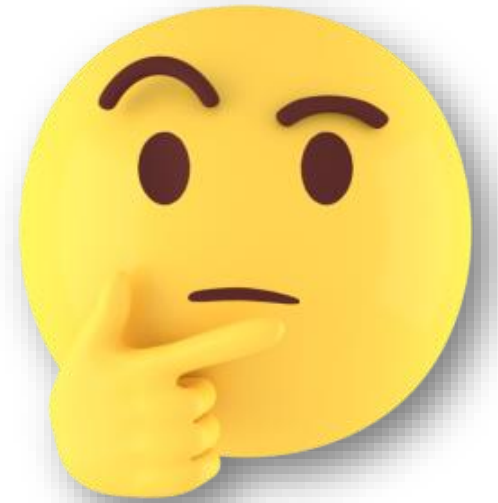
→ Implicit vs explicit

→ Bloom's taxonomy vs critical thinking

→ Clear expectations



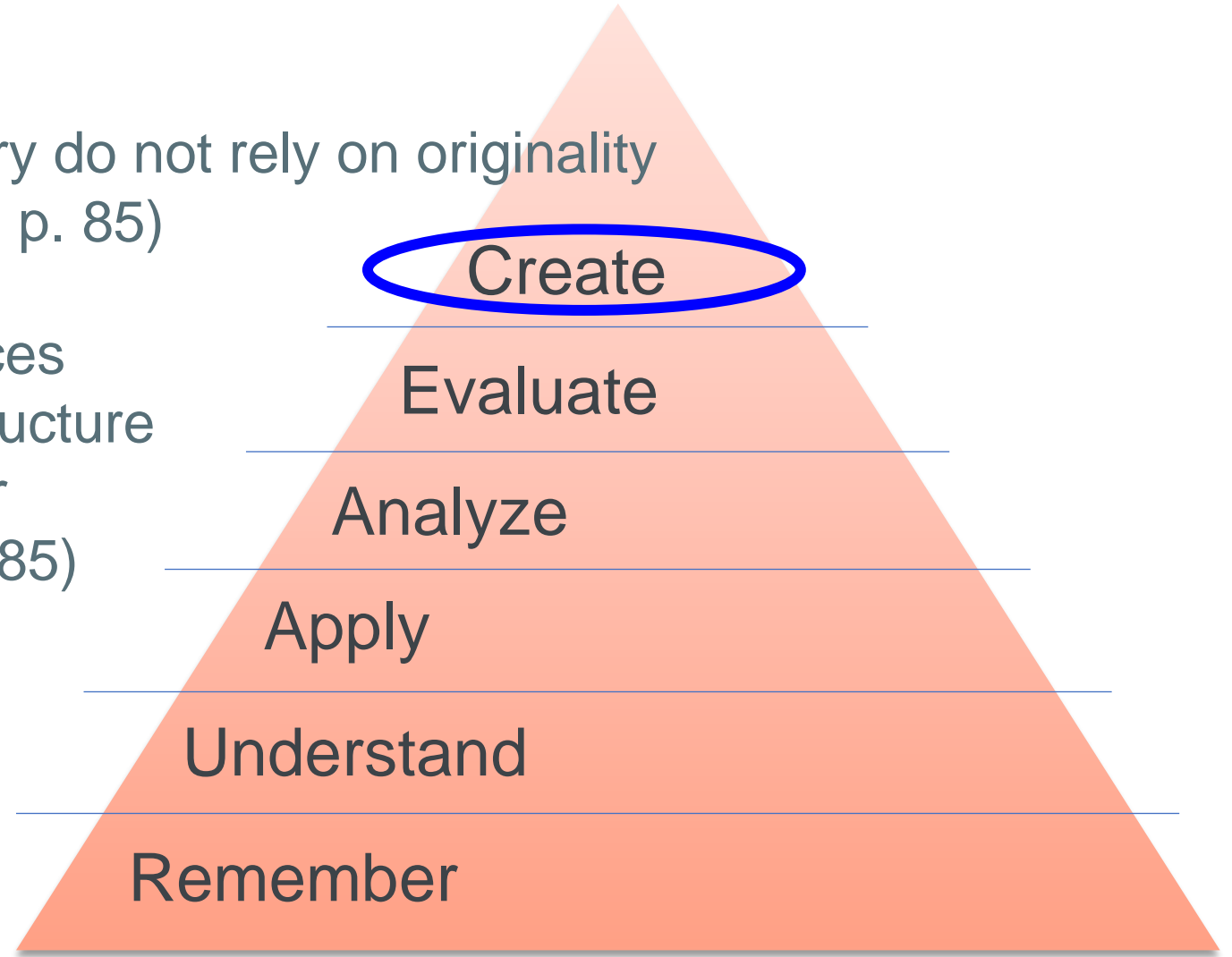
- What are your experiences with Bloom's Taxonomy?
- Should Bloom's Taxonomy be taught to students?
- **Do you have a good understanding of Bloom's Taxonomy skills?**
- Which Bloom's Taxonomy skill do you see as the most important?



assemble previously taught material into an organized presentation
(Anderson et al., 2001, p. 85)

many objectives in the *Create* category do not rely on originality
or uniqueness (Anderson et al., 2001, p. 85)

draw upon elements from many sources
and put them together into a novel structure
or pattern, relative to [one's] own prior
knowledge (Anderson et al., 2001, p. 85)



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- What are your experiences with Bloom's Taxonomy?
- Should Bloom's Taxonomy be taught to students?
- **Do you have a good understanding of Bloom's Taxonomy skills?**
- Which Bloom's Taxonomy skill do you see as the most important?

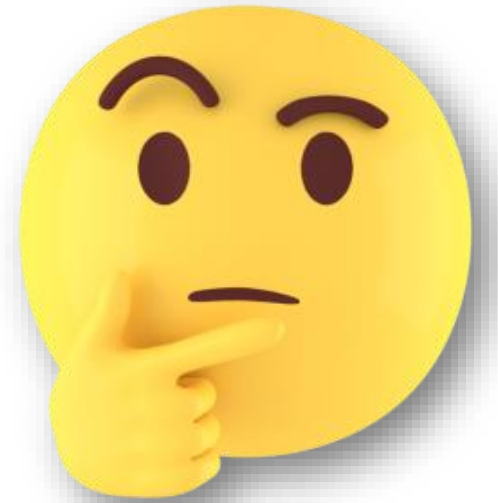


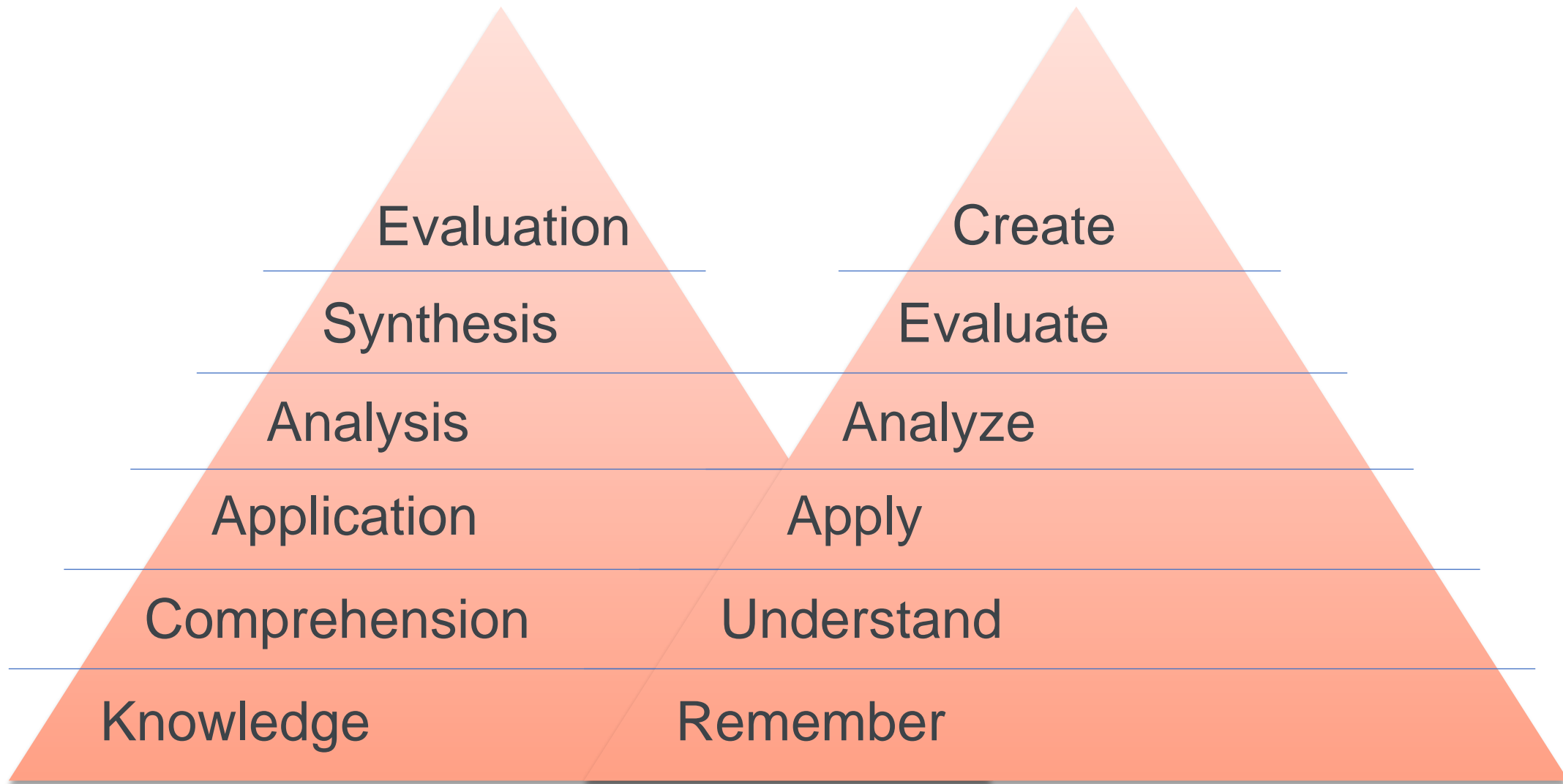
→ What are your experiences with Bloom's Taxonomy?

→ Should Bloom's Taxonomy be taught to students?

→ Do you have a good understanding of Bloom's Taxonomy skills?

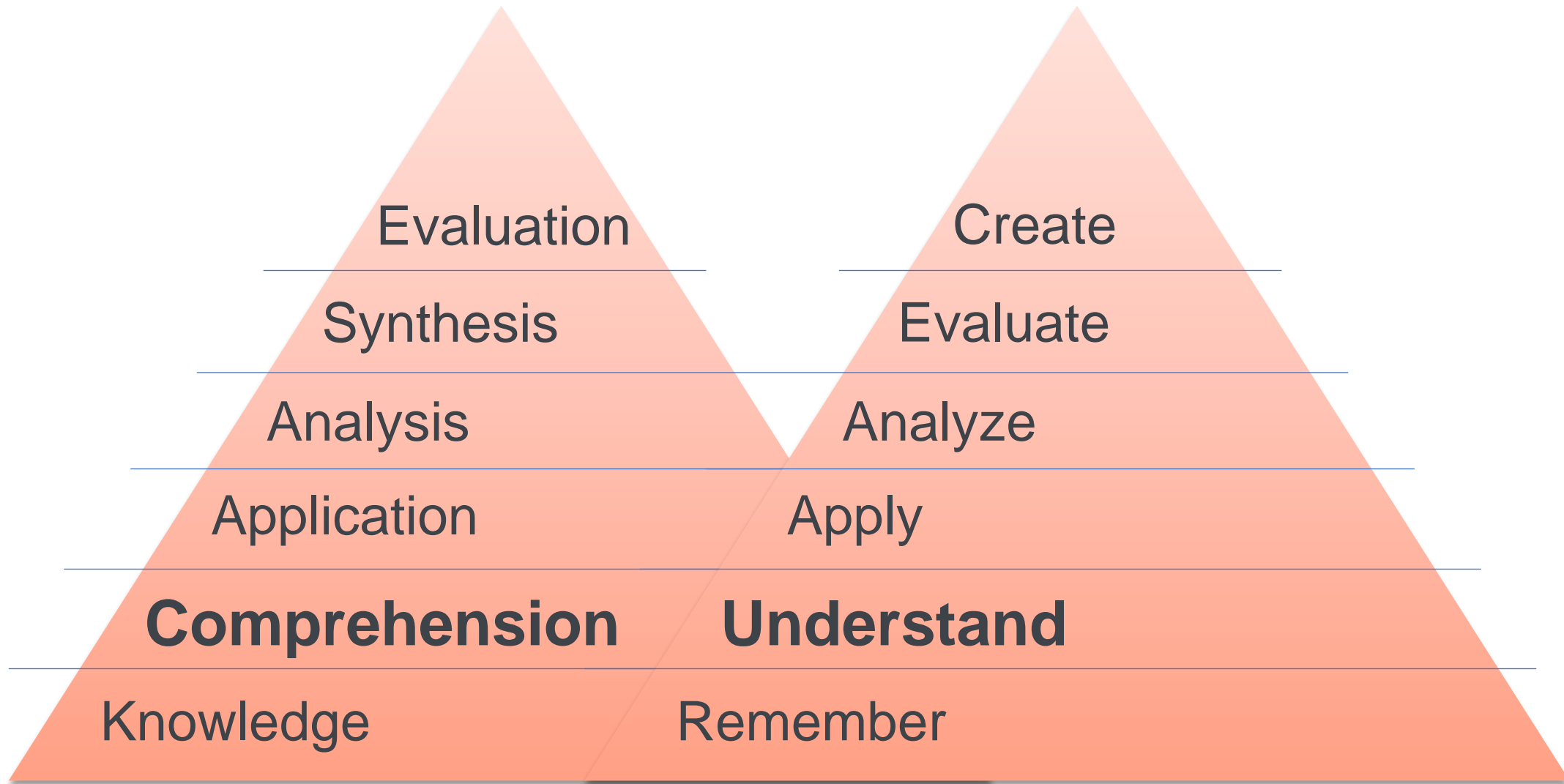
→ **Which Bloom's Taxonomy skill do you see as the most important?**





1956

2001



1956

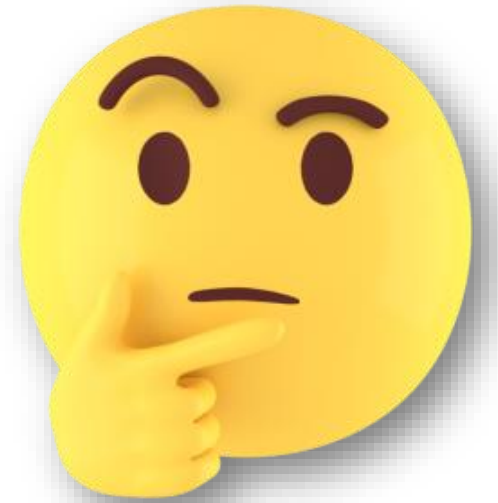
2001

→ What are your experiences with Bloom's Taxonomy?

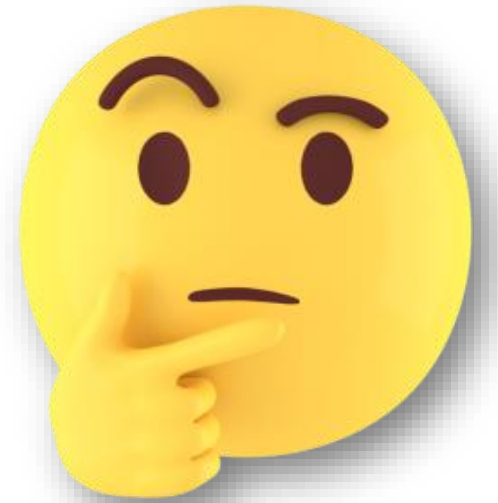
→ Should Bloom's Taxonomy be taught to students?

→ Do you have a good understanding of Bloom's Taxonomy skills?

→ **Which Bloom's Taxonomy skill do you see as the most important?**



- What are your experiences with Bloom's Taxonomy?
- Should Bloom's Taxonomy be taught to students?
- Do you have a good understanding of Bloom's Taxonomy skills?
- Which Bloom's Taxonomy skill do you see as the most important?



To sum up

- Need of thorough understanding of Bloom's Taxonomy skills
- Bloom's Taxonomy is primarily for educators
- As higher-order/critical thinking demonstrated in writing is less credible since AI, Bloom's Taxonomy has a renewed relevance



1903



1969

What is Bloom's Taxonomy really for?

IATEFL Brighton, 18 April 2024

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