

Is it just luck when they remember?

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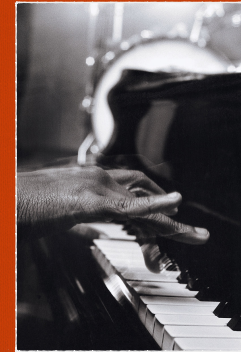
You and yours . . . Making the transfer

- ☐ Student(s)
- ☐ Situations(s)
- ☐ Musical Context(s)

"LUCK" CAN BE MADE

DID THEY LEARN (DID I TEACH) =

DO THEY . . . REMEMBER!



Teachers are "Controllers of Forgetting"

- ☐ Critical Thinking/Levels of Processing/ Higher-Order Thinking Skills (HOTS)
- ☐ Sensory Modalities
- ☐ Practice Schedule/Repetition
- ☐ Es, F, Ps
- ☐ What is the point?



Memory . . .



Procedural



Declarative

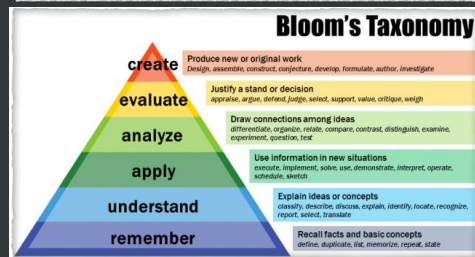
Critical Thinking/Level of Processing/ Higher-Order Thinking Skills (HOTS)



- ☐ Creating memories
 - ☐ Brain "forgets" (transience) material to make room for remembering (persistence) - Allows for decision-making and HOTS (Richards & Frankland, 2017)
 - ☐ Engage at higher levels improves retention of information (Craik & Lockhart, 1979)
 - ☐ "It's next to impossible to learn something deeply if you're simply following directions." (Duke, 2012) - ARE YOU ASKING QUESTIONS? Do they notice things? Feel?
 - ☐ Not just how much time you spend; not just about repetition (Duke, Simmons, & Cash, 2009)

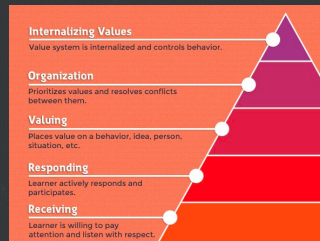
Craik & Lockhart, 1979; Duke, 2012; Duke, Simmons, & Cash, 2009; Heath & Heath, 2008; Richards & Frankland, 2017

Critical Thinking/Level of Processing/ Higher-Order Thinking Skills (HOTS)



Anderson & Krathwohl, 2001

Critical Thinking/Level of Processing/ Higher-Order Thinking Skills (HOTS)



Krathwohl, Bloom, & Maek, 1979

Sensory Modalities



- ☐ Vision is dominant sense (Medina, 2014)
- ☐ Visual info can influence judgements (cognitive influence) and aural perceptions (Schlegel & Springer, 2018; Schutz, 2008)
- ☐ Learning styles are NOT a thing; preferences (Pashler, McDaniel, Rohrer, & Bjork, 2009)
- ☐ Audio-visual feedback over visual alone (Eldridge, Saltzman, & Lahav, 2010; Schlegel & Springer, 2018)

Eldridge, Saltzman, & Lahav, 2010; Medina, 2014; Pashler, McDaniel, Rohrer, & Bjork, 2009; Schlegel & Springer, 2018; Schutz, 2008

Practice Schedules/Repetition



- ☐ Repeat to remember; Remember to repeat (Medina, 2014)
- ☐ Vast practice repetitions by experts of short segments/"very brief target passages" (Maynard, 2006)
- ☐ Repetitive practice may not be the best options for less-skilled folks. Strengthening habit of error? (Slombaugh, 2011). True also when folks have fewer self-regulatory skills
- ☐ Overlearning mistake? (Langer & Imber, 1979)
- ☐ "Target passages were repeated until the error was corrected and the passage was stabilized, as evidenced by the error's absence in subsequent trials." (Duke, Simmons, & Cash, 2009, p. 317)

Duke, Simmons, & Cash, 2009; Heath & Heath, 2008; Langer & Imber, 1979; Maynard, 2006; Medina, 2014; Slombaugh, 2011

- ☐ Student(s)
- ☐ Situations(s)
- ☐ Musical Context(s)

Es, F, Ps



- ☐ Emotion/Entertainment
- ☐ Flow
- ☐ ZPD, 33 Ps, People, and Pearls

EMOTIONS

What's LIGHTING you Up?



- ☐ Emotionally competent stimulus
- ☐ LIGHTING YOU UP
- ☐ Positive/negative
- ☐ SUCCES(s)
- ☐ Simple
- ☐ Unexpected
- ☐ Concrete
- ☐ Credible
- ☐ Emotional
- ☐ Stories



Heath & Heath, 2008; Medina, 2014

The Rhythm of Education . . . "A framework for repetition"

- ☐ **Romance**
 - ☐ "The subject-matter holds a vividness of novelty; it holds within itself unexplored connexions with possibilities half-disclosed by glimpses and half-concealed by the wealth of the material. In this stage, knowledge is not dominated by systematic procedure."
- ☐ Precision
 - ☐ "In this stage, width of relationship is subordinated to exactness of formulation. . . . It proceeds by forcing on students' acceptance a given way of analysing the facts, bit by bit"
- ☐ Generalisation
 - ☐ "It is a return to romanticism with added advantage of classified ideas and **relevant** technique."

Whitehead, 1929

Do we have enough romance? Is romance the point?

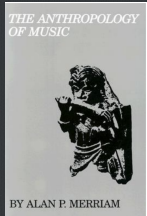
How do we make generalization feel like romance and make folks want more of it?

Do we spend so much time in precision that we forget about romance?

Do we spend too much time "getting ready" for the big moments and then don't get to have many, if any?



Merriam Functions . . . All societies . . . Entertainment?



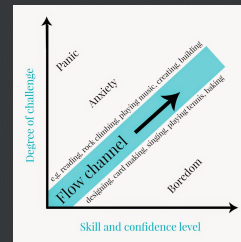
BY ALAN P. MERRIAM

Kelly, 2016; Merriam, 1964

Function	Description
Emotional Expression	Music serves as a vehicle to express ideas and emotions that people might not be able to do in ordinary interactions.
Aesthetic Engagement	Contemplating music in terms of its beauty or meaning, or to provide a feeling.
Entertainment	Music serves to engage our attention or divert attention to some other aspect.
Communication	While music is not a language, it is used to convey information and meaning.
Symbolic Representation	Music functions to represent some nonmusical thing, idea, or behavior.
Physical Response	Music excites, soothes, and stimulates behavior.
Enforcing Conformity to Social Norms	Music functions to help individuals to learn and accept cultural expectations and proper behavior.
Validates Social Institutions and Religious Rituals	Music helps to emphasize proper behaviors and attitudes associated with cultural organizations and ceremonies.
Contributing to the Continuity and Stability of Culture	Music serves to assure individuals of a continuation of norms and security in society.
Contribution to the Integration of Society	Music draws people together by inviting, encouraging, and even requiring individuals to work together.

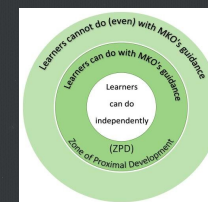
Flow . . . Find the balance

- ☐ Balance between challenge and skill
- ☐ Loss of consciousness



Csikszentmihalyi, 1990

Zone of Proximal Development

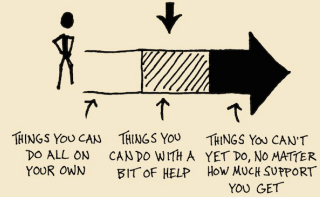


- ☐ "the distance between actual development level as determined by **independent** problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers."
- ☐ MKO = More knowledgeable other
- ☐ Scaffolding - support

Vygotsky, 1978; Wood, Bruner, & Ross, 1976

ZPD . . . #AssessforZPD

VISUALIZING THE ZONE OF PROXIMAL DEVELOPMENT



Vygotsky, 1978

A musical example . . . RMM with adults . . . CNHB

Rhythm Stand Etude

A 1: fl, ob, clar, ass, tpt, hn

A2

A3

B 9: bsn, bc1, bsn, tha

C 13: bsn, tss, bsn, thn, bar, tha

33 P's of a Wonderful Rehearsal

- | | | |
|--------------------------------------|--------------------------------------|--------------------------------------|
| ☐ Purpose | ☐ Positive | ☐ Praise |
| ☐ Plan | ☐ Pleasant | ☐ Pride |
| ☐ Position | ☐ Pleasurable | ☐ Plant |
| ☐ Preparation | ☐ Pause | ☐ Perspective |
| ☐ Pearl | ☐ Pass | ☐ Productive |
| ☐ Peace | ☐ People | ☐ Passion |
| ☐ Pace | ☐ Passage | ☐ Potential |
| ☐ Perceive | ☐ Pop-talk | ☐ Powerful |
| ☐ Pinpoint | ☐ Past | ☐ Pedagogy |
| ☐ Polish | ☐ Push | ☐ Posture |
| ☐ Precise | ☐ Persevere | ☐ Possible |
- ☐ P _____

Boorchardt, 2002

33 P's of Wonderful Teaching

- ☐ People
- ☐ Pearls



What this all meant . . .

The two outcomes/objectives of EVERY music performance, lesson, class, rehearsal, lecture, conversation, jam session, research endeavor, (I think that's enough)

Auditory Neuroscience Laboratory

brainvolts.northwestern.edu

Aural Skills

Music Appreciation

Thanks for having me here! In order to remember (LLB) material from today, you will have to apply it (HLB) or get "lit" up (EMOTION/ROMANCE) by it in order to not lose it (transience). You might also have to process at it a deeper level (HLB).

Go and make lots of musical memories!

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