LEARNING ASSISTANT MANUAL
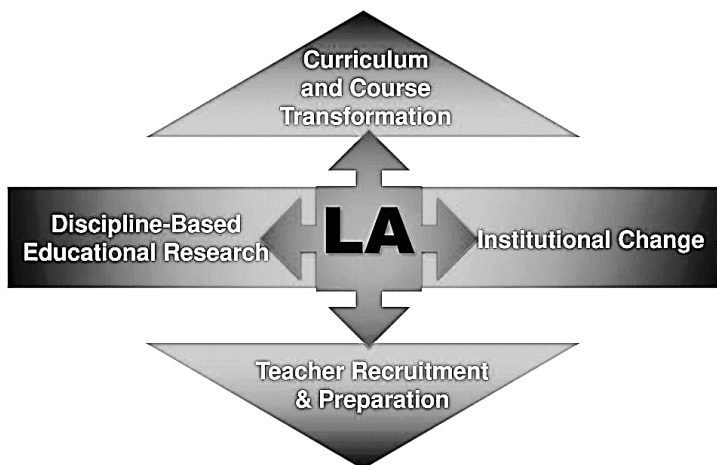
Learning Actively Mentoring Program

University of Wyoming
EDSE 4900/5900

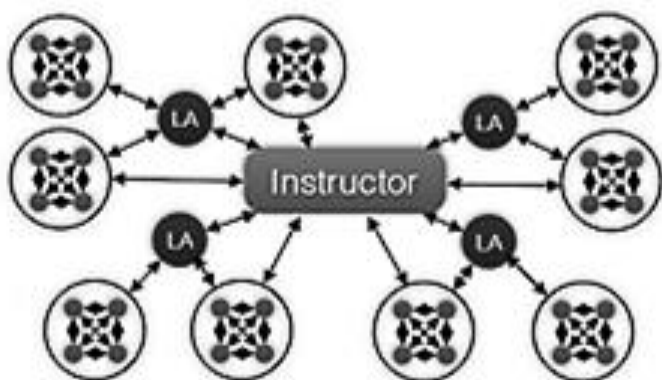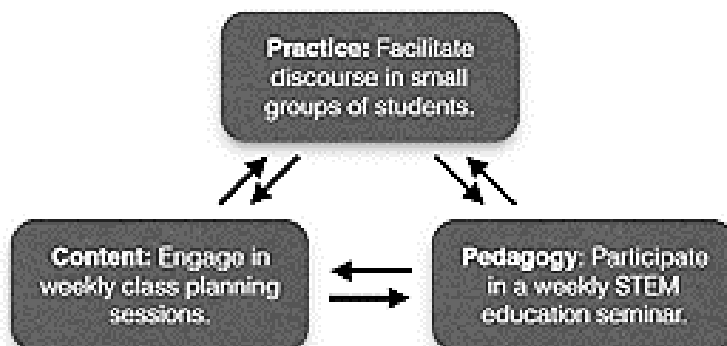# What are the goals of an LA Program?

Who are Learning Assistants?

Learning Assistants are undergraduate and post-bacc students who, through the guidance of weekly preparation sessions and a pedagogy course, facilitate discussions among groups of students in a variety of classroom settings that encourage active engagement.

What is an LA's experience?

1. Interactions with groups of students
2. Weekly meetings with faculty mentors
3. Teaching reflections in pedagogy course

Practice: Facilitate discourse in small groups of students.

Content: Engage in weekly class planning sessions.

Pedagogy: Participate in a weekly STEM education seminar.

Instructor

What are transformed courses?

- Use LAs to promote interaction and collaboration among students
- Communication with other faculty
- Evaluating learning outcomes

Figures taken/adapted from Otero et *al.*, 2010

What do past LAs feel about their experience?

1. Increased confidence with the material and as a peer-mentor
2. Struggle finding their place in the classroom hierarchy
3. Increased metacognition and understanding of the learning process
4. Frustration by taking on responsibility for student learning
5. Appreciation for teaching and the professional and social skills necessary
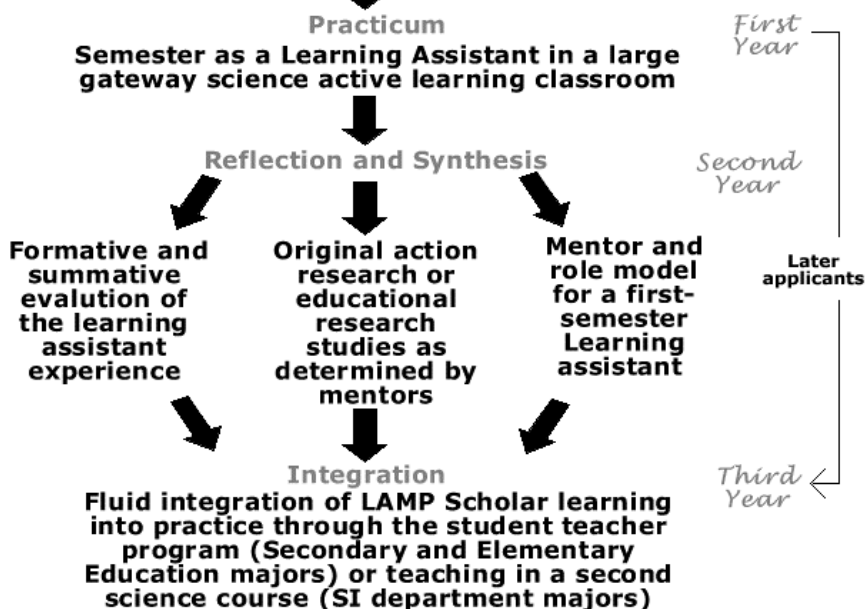
EXPERT TIP

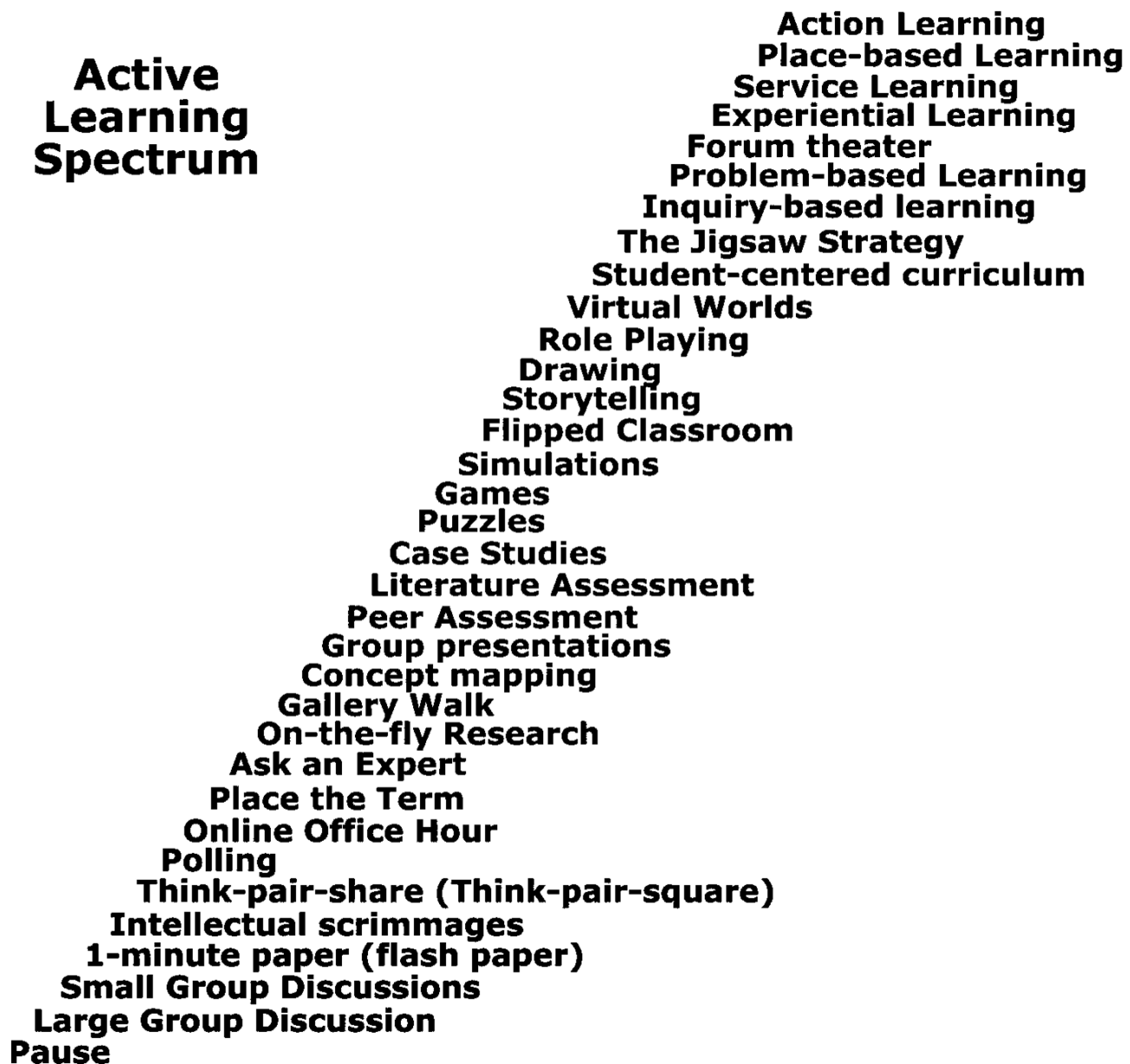## What advice do experienced LAs have for new LAs?

- Ask probing questions
- Communicate regularly with your faculty mentor
- Give meaningful feedback
- Emphasize progress as much, if not more than, mastery
- Get to know your LA peers
- Communicate your role as an LA to your students
- Ask for help
- Don't fall behind on your own work

How can LAs continue to grow?

- o Co-author education papers
- o Present at conferences
- o Design lesson plans
- o Help develop curriculum
- o Mentor other LAs
- o Pursue secondary education

Apply and be Selected as a LAMP Scholar Team

⬇

Practicum — *First Year*
Semester as a Learning Assistant in a large gateway science active learning classroom

⬇

Reflection and Synthesis — *Second Year*

Formative and summative evelution of the learning assistant experience

Original action research or educational research studies as determined by mentors

Mentor and role model for a first-semester Learning assistant — **Later applicants**

Integration — *Third Year*
Fluid integration of LAMP Scholar learning into practice through the student teacher program (Secondary and Elementary Education majors) or teaching in a second science course (SI department majors)

Active Learning Spectrum

Action Learning
Place-based Learning
Service Learning
Experiential Learning
Forum theater
Problem-based Learning
Inquiry-based learning
The Jigsaw Strategy
Student-centered curriculum
Virtual Worlds
Role Playing
Drawing
Storytelling
Flipped Classroom
Simulations
Games
Puzzles
Case Studies
Literature Assessment
Peer Assessment
Group presentations
Concept mapping
Gallery Walk
On-the-fly Research
Ask an Expert
Place the Term
Online Office Hour
Polling
Think-pair-share (Think-pair-square)
Intellectual scrimmages
1-minute paper (flash paper)
Small Group Discussions
Large Group Discussion
Pause

This active learning spectrum was designed by Rachel Watson (University of Wyoming), and while some of the ideas are novel most of them are informed by others. Some resources that were informative: Schreyer Institute for Teaching Excellence, Penn State University (https://schreyerinstitute.psu.edu/pdf/alex/jigsaw.pdf); Chris O'Neal and Tershia Pinder- Grover (Center for Research on Learning and Teaching, University of Michigan); Cornell University (http://www.cte.cornell.edu/teaching-ideas/engaging-students/active-learning.html)

For more information on the University of Wyoming's efforts on Large-Scale Active Learning in STEM, please visit the Learning Actively Mentoring Program website at www.uwyo.edu/science-intiative/lamp.

Active Learning Spectrum Short Definitions

Pauses: Purposeful use of pauses to emphasize important points and provide processing and questioning time

Large Group Discussion: Engaging the entire class in discussion surrounding a topic, question or problem

Small Group Discussions: Students groups (of ~5 or less) discuss a given topic, question or problem together

1-Minute Paper: 1 minute informal written (on a notecard for example) student responses to a given prompt or question

Intellectual scrimmages: Competitive team or individual game evaluating content understanding

Think-Pair-Share: Students are asked to think privately about a given question or problem before pairing with a neighbor or partner to discuss their answers. Finally, students share out to the entire class

Polling: Using technology or simpler way of displaying an answer to rapidly assess student understanding (& can then directly address misconceptions)

Online Office Hours: Alternative office hour forum providing additional access for students (i.e. women, non-traditional)

Place the Term: Given a term, students choose which category or group to place it in

Ask an Expert: Have a subject matter expert available via text or another technology for real-time class discussion

On-the-fly Research: Utilizing student cell phones &/or laptops to answer questions &/or find topic information

Gallery Walk: Student groups respond to given prompts (on large post-its or on the boards), discussing, writing responses and rotating to each prompt. Returning to the initial prompt, students summarize themes for the class.

Concept Mapping: Illustrating relationships between studied terms or concepts with connecting lines & phrases

Peer-Assessment: Students are asked to provide oral or written feedback to their peers

Case Studies: A real-life story or situation that encourages and allows students to explore/investigate issues related to a concept, often in effort to make a discovery or solve a case

Puzzles: Activities or games focusing on developing student problem-solving skills and creativity

Games: Potentially taking many different forms, educators provide an active instructional session for students that often requires concept application to earn points or improve ranking compared to other students or student groups

Simulations: Using an imitation or enactment (of something anticipated or in testing) to examine a concept

Flipped Classroom: Providing content material outside of class (i.e. through video) to allow for in-class activities

Role Playing: Students act out specific parts or situations to enhance concept understanding

Virtual Worlds: Computer-based simulated environment where student and instructor avatars interact (second life.com)

Student-centered curriculum: Educational programs, instructional strategies, and academic-support approaches intended to address the unique learning needs &/or cultural backgrounds of individual students and student groups

Jigsaw: Student groups are each given different but related topics and asked to collaborate to form expertise in their specific area, guided by leading questions and suggested resources. With knowledge gained, group members are split and reformed with one 'expert' in each group to teach their topic and learn from their peers.

Inquiry-based Learning: Student concept discovery and development through investigation (w/ leveled guidance)

Problem-based Learning: Students apply course concepts to describe and potentially solve a selected problem

Forum Theater: A tool for exploring & rehearsing possible actions that people can take to transform oppression

Experiential Learning: Knowledge, skill and value development from direct experiences often outside a traditional academic setting (i.e. internships, study abroad, undergraduate research, residency programs, etc.)

Service Learning: Applying course content to assist and provide a service for an organization, group or individual in need

Place-based Learning: Instruction outside the classroom relating course concepts to real-world applications

Action Learning: A small group working on real problems, taking action, learning as individuals and as a team

Teaching Styles

The goal of teaching is to help others learn, but *how* you go about doing that depends on the setting and what your students' specific goals are. There are many styles of teaching, but four methods you may find yourself using as an LA could include:

- Facilitating – making an action or process easier; assisting
- Training – improving one's capability or performance; developing
- Coaching – enabling others to refine their skills and find direction; guiding
- Mentoring – counseling another with wisdom and trustworthiness; advising

Likely, you will find yourself facilitating discussions among your students. However, you will probably find that you train or coach students during office hours. Occasionally, you may find that a student forms a strong connection with you, seeking advice beyond the scope of the class, landing you in the mentoring role. Teaching doesn't occur in just one fashion, and it's different for everyone, so don't be surprised if you end up wearing multiple hats as an LA.
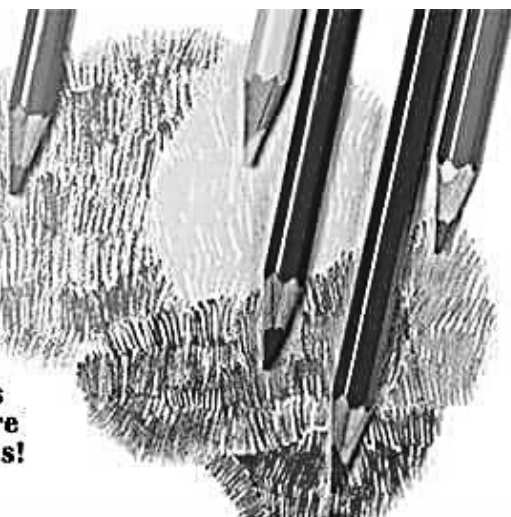
FACILITATING	TRAINING
- Group learning - Enhancing internal knowledge - General topics - Focus on process - Low responsibility for growth	- Individual skills - Sharing external knowledge - Specific topics - Focus on content - Low responsibility for growth
COACHING	MENTORING
- Group learning - Enhancing internal knowledge - Specific topics - Focus on process - High responsibility for growth	- Individual skills - Sharing external knowledge - Specific topics - Focus on content - High responsibility for growth

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citizen foundation

The Ultimate Cheatsheet for
Critical Thinking

Want to exercise critical thinking skills? Ask these questions whenever you discover or discuss new information. These are broad and versatile questions that have limitless applications!
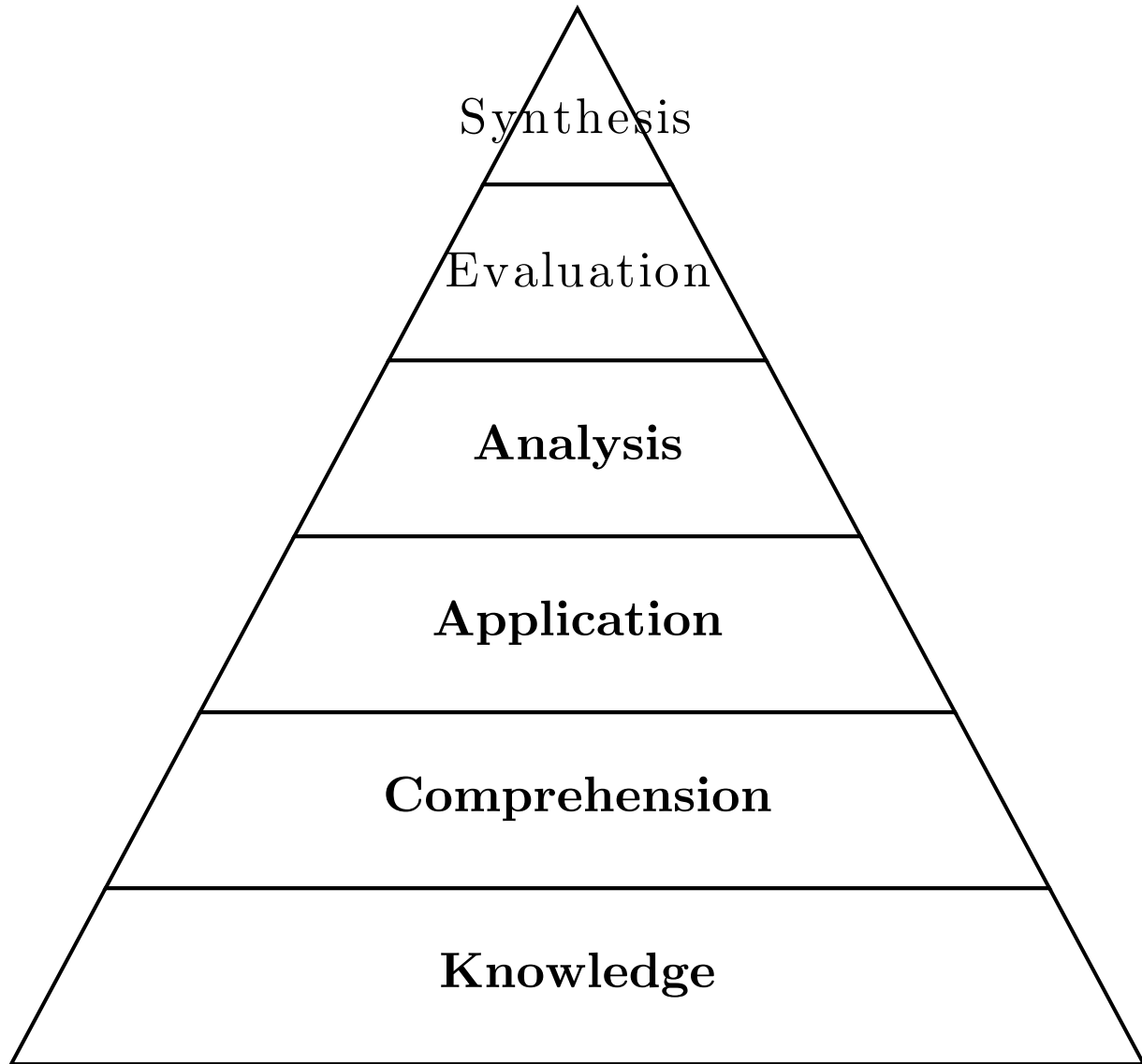
Who

... benefits from this?
... is this harmful to?
... makes decisions about this?
... is most directly affected?
... have you also heard discuss this?
... would be the best person to consult?
... will be the key people in this?
... deserves recognition for this?

What

... are the strengths/weaknesses?
... is another perspective?
... is another alternative?
... would be a counter-argument?
... is the best/worst case scenario?
... is most/least important?
... can we do to make a positive change?
... is getting in the way of our action?

Where

... would we see this in the real world?
... are there similar concepts/situations?
... is there the most need for this?
... in the world would this be a problem?
... can we get more information?
... do we go for help with this?
... will this idea take us?
... are the areas for improvement?

When

... is this acceptable/unacceptable?
... would this benefit our society?
... would this cause a problem?
... is the best time to take action?
... will we know we've succeeded?
... has this played a part in our history?
... can we expect this to change?
... should we ask for help with this?

Why

... is this a problem/challenge?
... is it relevant to me/others?
... is this the best/worst scenario?
... are people influenced by this?
... should people know about this?
... has it been this way for so long?
... have we allowed this to happen?
... is there a need for this today?

How

... is this similar to _____?
... does this disrupt things?
... do we know the truth about this?
... will we approach this safely?
... does this benefit us/others?
... does this harm us/others?
... do we see this in the future?
... can we change this for our good?

CRITICAL THINKING SKILLS

1 Knowledge
Identification and recall of information

define	label	name	state
fill in the blank	locate	recall	tell
list	match	spell	underline
identify	memorize		

Who _____? How _____?
What _____? Describe _____.
Where _____? What is _____?
When _____?

2 Comprehension
Organization and selection of facts and ideas

convert	interpret	restate	summarize
describe	paraphrase	retell in your own words	trace
explain	put in order	rewrite	translate

Re-tell _____ in your own words. What differences exist between _____?
What is the main idea of _____? Can you write a brief outline?

3 Application
Use of facts, rules, and principles

apply	demonstrate	give an example	show
compute	determine	illustrate	solve
conclude	draw	make	state a rule or principle
construct	find out	operate	use

How is _____ an example of _____? Do you know of another instance where _____?
How is _____ related to _____? Could this have happened in _____?
Why is _____ significant?

4 Analysis
Separating a whole into component parts

analyze	contrast	diagram	examine
categorize	debate	differentiate	infer
classify	deduct	dissect	specify
compare	determine the factors	distinguish	

What are the parts or features of _____? How does _____ compare/contrast with ___?
Classify _____ according to _____. What evidence can you present for _____?
Outline/diagram/web/map _____.

5 Synthesis
Combining ideas to form a new whole

change	find an unusual way	predict	revise
combine	formulate	pretend	suggest
compose	generate	produce	suppose
construct	invent	rearrange	visualize
create	originate	reconstruct	write
design	plan	reorganize	

What would you predict/infer from _____? What solutions would you suggest for _____?
What ideas can you add to _____? What might happen if you combined _____
How would you create/design a new _____? with _____?

6 Evaluation
Developing opinions, judgements, or decisions

appraise	decide	judge	rate
choose	defend	justify	select
compare	evaluate	prioritize	support
conclude	give your opinion	rank	value

Do you agree that _____? Explain. Prioritize _____ according to _____?
What do you think about _____? How would you decide about _____?
What is most important? What criteria would you use to assess _____?

Cognitive Domain

Synthesis

Evaluation

Analysis

Application

Comprehension

Knowledge

The cognitive domain involves knowledge and the development of intellectual skills. This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills. This hierarchy of knowledge can be categorized as factual, conceptual, procedural, and metacognitive.

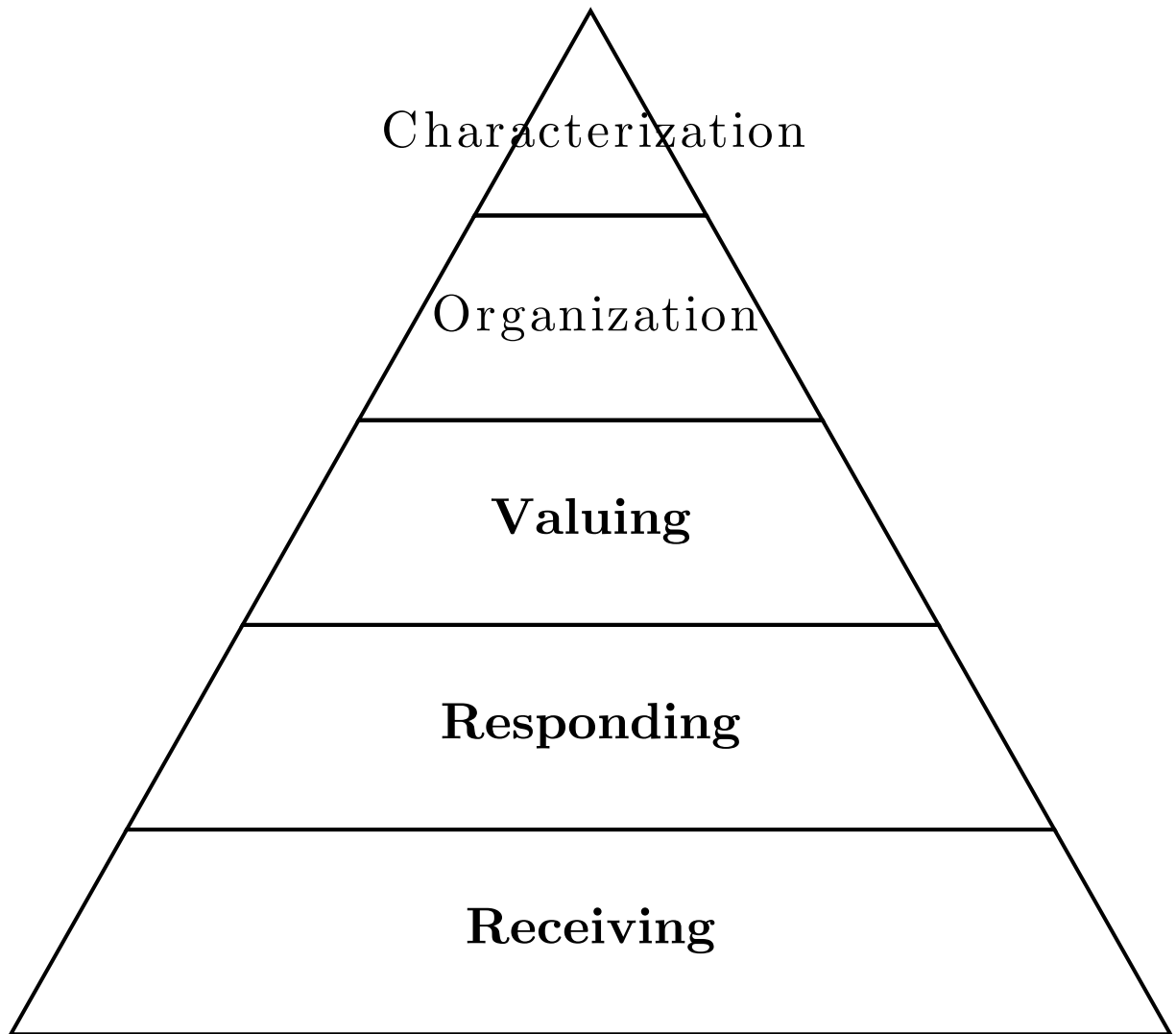| Level	Description	Verbs
Knowledge	To recall or recognize information in some pre-arranged form	Define List
Comprehension	To understand meaning of information based on prior learning	Describe Explain Interpret
Application	To utilize information to complete a task with limited direction	Compute Solve Use
Analysis	To classify and relate assumptions or evidence	Contrast Examine
Evaluation	Critique idea based on specific standards and criteria	Appraise Judge Justify
Synthesis	To integrate or combine ideas into a new product or plan	Design Develop Organize
Composing	Creating unique movement pattern	Create Invent

Psychomotor Domain

Composing

Improvising

Varying

Refining

Accommodating

Patterining

Perceiving
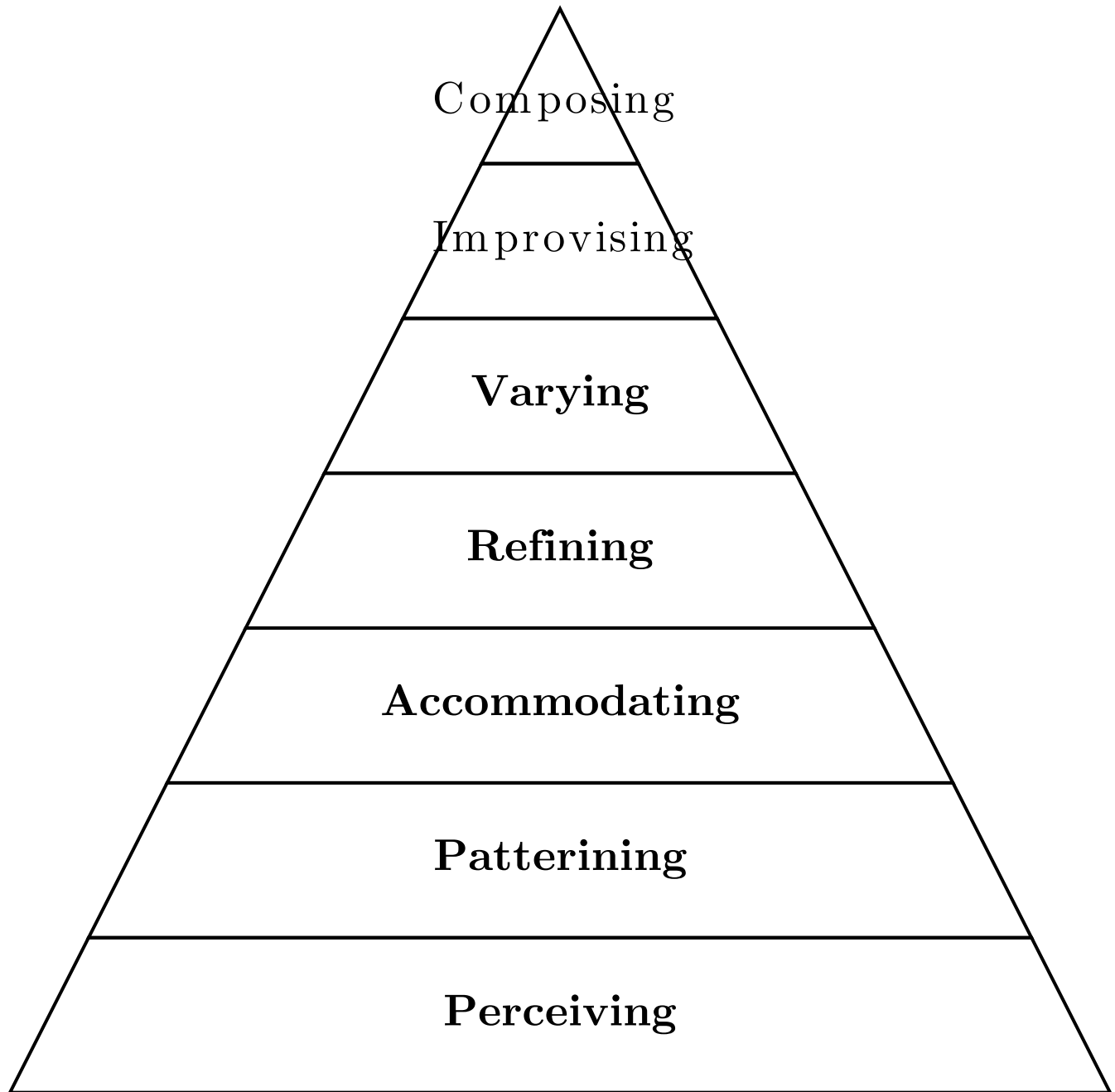
The psychomotor domain includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution. Thus, psychomotor skills range from manual tasks such as digging a ditch or washing a car, to more complex tasks, such as dancing or operating a complex piece of machinery.

Level	Description	Verbs
Perceiving	Recognizing movement, position, or pattern	Listen Observe
Patterning	Reproducing movement, position, or pattern	Imitate Practice
Accommodating	Using or modifying movement, position, or pattern	Adjust Modify
Refining	Demonstrating efficient control in performing pattern	Improve Master
Varying	Performing movement pattern in different ways	Design Develop
Improvising	Originating novel movement or movement combinations	Construct Invent
Composing	Creating unique movement pattern	Create Invent

Affective Domain

Characterization

Organization

**Valuing**

Responding

Receiving

The affective domain includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes.

Level	Description	Verbs
Receiving	Being aware of or attending to something in the environment	Listen Notice Tolerate
Responding	Showing some new behavior as a result of experience	Comply Enjoy Follow
Valuing	Showing some definite involvement or commitment	Carry out Express
Organization	Integrating a new value into one's general set of values relative to other priorities	Choose Consider Prefer
Characterization	Acting consistently with the new value; person is known by the value	Act on Depict Exemplify

Hierarchy of Needs

Self-
Actualization

Esteem

**Love &
Belonging**

Safety
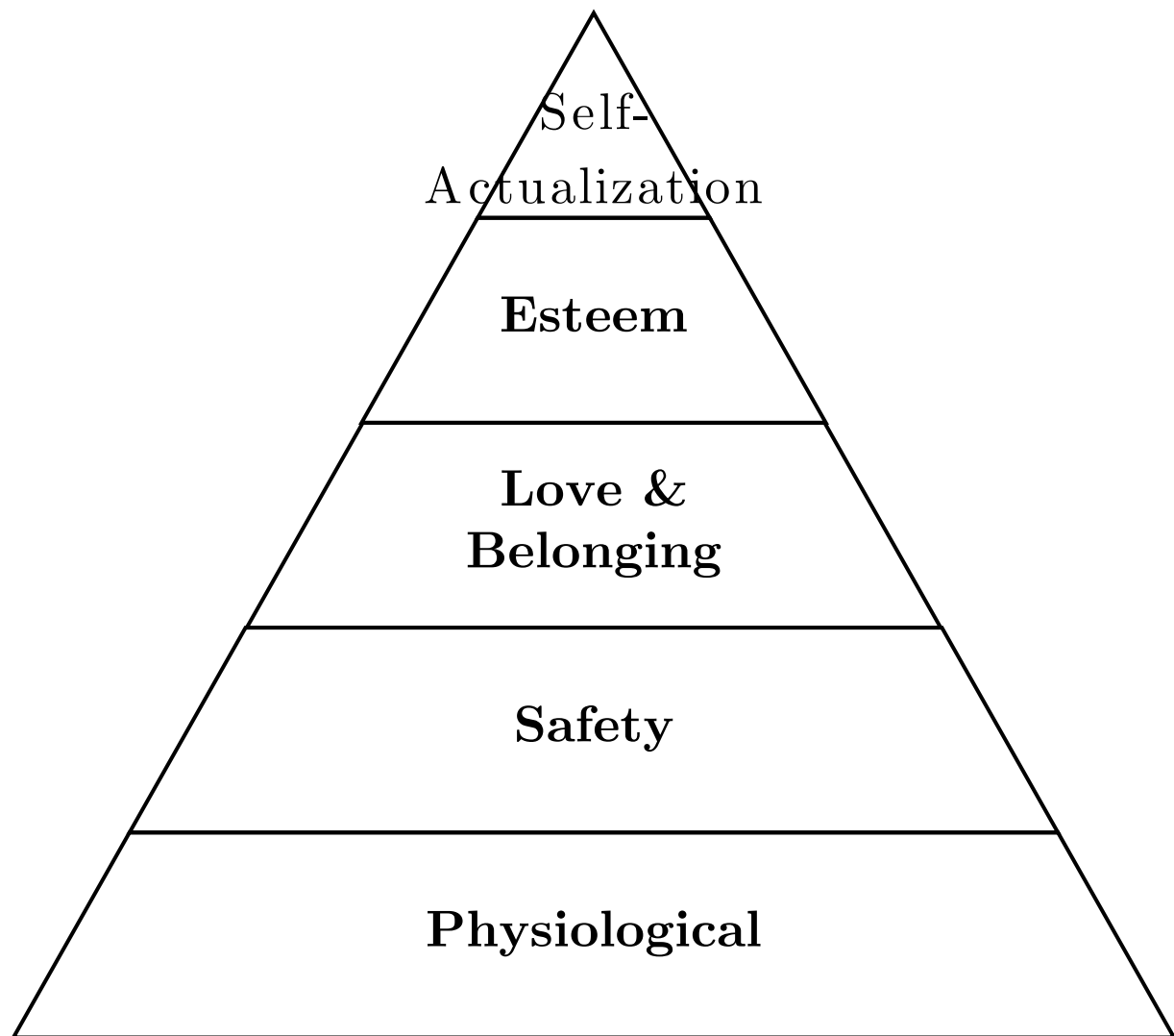
Physiological

Maslow's hierarchy of needs puts forward that people are motivated by five basic categories of needs. The higher needs begin to emerge when people feel they have sufficiently satisfied the previous needs.

Level	Description	Needs
Physiological	Basic physical needs	Air, Water, Food, Shelter, Sleep, Clothing, Reproduction
Safety	Environmental needs	Personal Security, Employment, Resources, Health, Property
Love & Belonging	Relationship needs	Friendship, Intimacy, Family, Sense of Connection
Esteem	Need to feel good about oneself	Respect, Self-Esteem, Status, Recognition, Strength, Freedom
Self-Actualization	Need to feel fulfilled	Desire to become the most that one can be

FAIR ISN'T

EVERYBODY GETTING THE SAME THING...

FAIR IS

EVERYBODY GETTING WHAT THEY NEED IN ORDER TO BE

SUCCESSFUL.

G·R·O·W·T·H

M I can learn from my MISTAKES

I I can IMPROVE by WORKING HARD

N I will NEVER GIVE UP

D I am DETERMINED to DO MY BEST

S SELF-REFLECTION will help me SUCCEED

E I can overcome challenges with EFFORT

T I can TRAIN MY BRAIN

WHAT CAN I THINK INSTEAD?

| INSTEAD OF	TRY THINKING
I'M NO GOOD AT THIS	→ WHAT AM I MISSING?
THIS IS TOO HARD	→ THIS MAY TAKE EXTRA TIME & EFFORT BUT I'LL EVENTUALLY GET IT
I GIVE UP	→ I'LL ASK FOR HELP& KEEP TRYING UNTIL I UNDERSTAND
IT'S GOOD ENOUGH	→ IS THIS MY BEST WORK?
I ALWAYS MAKE MISTAKES	→ MISTAKES ARE JUST PROOF THAT I'M TRYING
PLAN A DIDN'T WORK	→ GOOD THING THE ALPHABET HAS 25 MORE LETTERS!

Active Learning :: Multi-Modal Learning
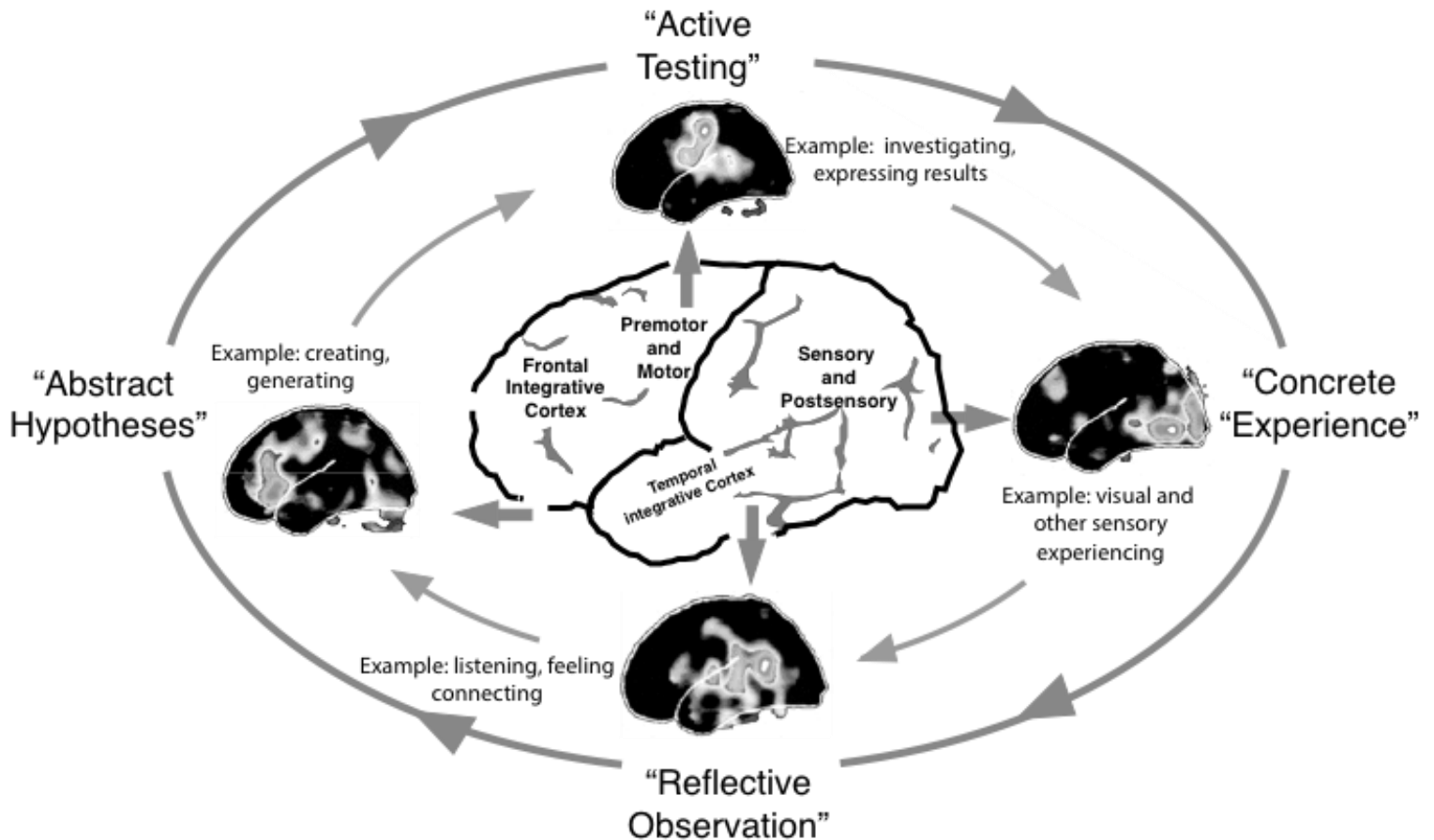
- Brain learns by building and stabilizing neural connections (Leamnson, 1999)
  - More connections = more learning
- Building and stabilizing connections takes energy and nutrition
  - We naturally avoid expending unnecessary energy → *myelinization* causes frequently-used connections to fire more quickly
- Surprises myelinizes networks quickly
  - Surprise = being wrong; discovering something that disrupts our assumptions, misconceptions, and biases
- Active learning techniques engage the full brain, helping us learn and retain content better and increase our personal capacity for learning

Brain Rules by John Medina

1. Exercise: exercise boots brain power

2. Survival: the human brain evolved
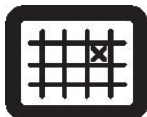
3. Wiring: every brain is wired differently

4. Attention: people don't pay attention to boring things

5. Short-term memory: repeat to remember

6. Long-term memory: remember to repeat

7. Sleep: sleep well, thinking well

8. Stress: stressed brains do not learn the same way as non-stressed brains

9. Sensory integration: stimulate more of the senses at the same time

10. Vision: vision trumps all other senses

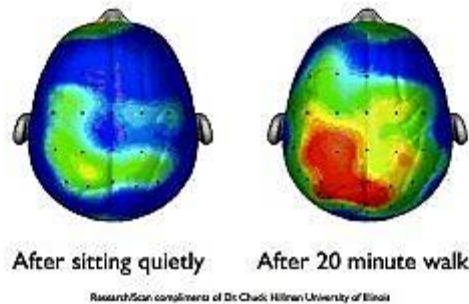11. Gender: male and female brains are different

12. Exploration: we are powerful and natural explorers

Brain Breaks

The brain is a muscle, so it fatigues after strenuous and continuous use. *Brain breaks* are quick activities (~15 minutes, unrelated to content) that get students recharged and ready for more effective learning. Some ideas of brain breaks are listed below, though they may need adjusting depending on the size of the class.

Composite of 20 student brains taking the same test

After sitting quietly   After 20 minute walk

Research/Scan compliments of Dr. Chuck Hillman University of Illinois

- **Trading Places** – Students stand behind their pushed-in chairs. Call out a trait, and everyone who has that trait must change places with someone else. Try to go until everyone has changed spots at least once.

- **Keep It Up** – Students try to keep a beach ball or balloon in the air without letting it touch the ground. Add more balls to increase the challenge.

- **Six Spots** – Number six spots around your room from 1-6. Have students each go to a spot of their choice. Choose a student to roll a die (over-sized dice are more fun). All the students at the number rolled must go back to their seats. Students that are left go to a new spot, and the die is rolled again. Continue until only one student is left.

- **Recorded Movement Songs** – Dance to a well-known or easily-learned routine such as a simple Zumba routine, YMCA, the Macarena, or Single Ladies.

- **Would You Rather** – Ask a "would you rather" question and have students show their choice by moving to one end of the room or the other. Have a few students share why.

- **Find It Fast** – Call out a color or trait. Students must find an object in the room that fits the trait and get to it quickly.

- **Limbo** – Get a long stick and play some music.

- **Human Knot** – Divide students into groups of about eight. Have students each grab right hands with someone who is not directly next to them. Then do the same with left hands. The challenge is to untangle and become a circle without releasing hands.

Building Rapport

Rapport, defined as "the ability to maintain harmonious relationships based on affinity" (Granitz et *al.*, 2009), is more colloquially thought of as what happens when two people "click"—they connect, interact well, and respond to each other favorably. Rapport does not result in learning, but it certainly helps to create conditions conducive to learning. When students feel rapport with their instructors, they report having **higher motivation**, **increased comfort**, **better perceptions of the degree program**, **satisfaction**, **enhanced communication**, and **trust**.

Faculty cite the five following concepts as most effective for building rapport with students.

1. **Respect.** Teachers and students must show respect for each other, for the learning process, and for the institution where it is occurring.
2. **Approachability.** Students have to feel comfortable coming to faculty and faculty must be willing to speak with students, after class, during office hours, via email, on campus.
3. **Open communication.** Faculty must be honest. There needs to be consistency between what faculty say and what they do.
4. **Caring.** Faculty must care about students; they must see and respond to them as individuals. They also need to care about learning and show that they want students to learn the material.
5. **Positive attitude.** Faculty should have a sense of humor and be open to points of view other than their own.

Some more specific ways for building rapport include:

- Call your students by name
- Learn something about your students' interests, hobbies, and aspirations
- Create and use personally relevant class examples
- Arrive early and stay late to chat with students
- Use online forums to increase accessibility to your students
- Reward student comments and questions with appropriate praise
- Be enthusiastic about teaching and passionate about the subject matter
- Be humble, respectful, and light-hearted
- Make eye contact
- Smile!

Rapport is not something developed by announcement. Rapport is developed by actions—it results from things teachers do. The good news, as demonstrated by the content of this article, is that we know empirically what teachers can do to establish rapport. The even better news is that the actions required aren't all that difficult to execute.

Teaching with Technology

Introducing technology to the classroom is a great way to engage students in the learning process. Technology is part of everyday life, so rather than trying to restrict its use, its better to embrace it. Here are some ideas.

Delivering Content

- Run a virtual field trip (ex: Google Cardboard)
- Preview field trips virtually (ex: Google Earth)
- Quiet a too-noisy classroom (ex: Too Noisy)
- Use videos for mini-lessons
- Coordinate live video lessons
- Play podcasts
- Add multimedia elements to presentations (images, graphs, pictographs, podcast clips, sound effects, short video lessons, clips from news, etc)
- Send adaptive content via smartphone apps
- Share an online class calendar

Helping Students Process Content

- Use virtual manipulatives (ex: National Library of Virtual Manipulatives)
- Run learning stations (device needed at each station to provide content)
- Provide online activities for students who complete work early
- Save time for exit tickets (ex: online journal entries, slideshow comments, tweets)
- Use Twitter hashtag to take questions
- Study, review, and critique content on webpages (ex: Bounce creates interactive screenshot)
- Use online mind maps for class brainstorms
- Gather student feedback (ex: Socrative, Google Forms, Survey Monkey, Poll Everywhere)

Allowing Students to Create Products

- Launch a wiki page for a collaborative assignment
- Set up student blogs
- Offer open-ended projects (ex: designing web content, putting together ebooks, creating original art, composing musical tunes, crafting multimedia projects)
- Use online sign-ups
- Base assignments on technology-focused subjects

Offering a Unique Learning Experience

- Introduce game-based learning platform
- Play simulations
- Participate in a webquest

The Key Ingredients to Student Success in a College Course

Stacy Roth

It is very rewarding personally and professionally to teach psychology in higher education. As I reflect on teaching and working with students, I am mindful of the five key ingredients I have found to be valuable to their success in a course.

The first ingredient is creating a trusting, safe, and respectful learning environment for students to thrive. When students feel comfortable in their learning environment, they feel confident to express their ideas, ask questions, and connect with the course in a meaningful way.

The second ingredient is caring about students' well-being and expressing genuine concern for their success. This is paramount to teaching in a meaningful way. As Parker Palmer (1998) wrote, "Good teachers possess a capacity for connectedness. They are able to weave a complex web of connections among themselves, their subjects, and their students so that students can learn to weave a world for themselves" (11). There are few things more rewarding for a teacher than to witness our students seeing the value of the course material and connecting it to their own lives as it relates to their educational and professional goals.

The third ingredient is to help students aspire to their goals in the course. It is important to facilitate learning opportunities using discussions, technology, course assignments, and group work throughout the course to connect theory and practice. Supportive relationships in the classroom can encourage students to become more invested in learning, enable them to extend beyond their current abilities, and form a bridge of mentorship (Meyers, 2009). These learning opportunities can help students discover their 'why" as it relates to their educational and professional goals.

The fourth ingredient is responsibility. I see the value of discussing my responsibility as an instructor and the student's responsibility on the first day of class. Discussing responsibility on a regular basis with students and building rapport with them is valuable to their success in the course. Rapport impacts students' attitudes toward the class, their academic behavior, and the extent of their learning (Meyers, 2009). Being approachable to students, expressing excitement for the course content, making time to discuss students' concerns, and exhibiting positivity towards their class performance are important elements of responsibility. Wilson (2006) found that students' perceptions of their professors' positive attitudes toward them (e.g. concern, desire for students to succeed) accounted for 58 percent of the variability in student motivation, 42 percent of the variance in course appreciation, and 60 percent of their attitude about the instructor.

The last ingredient is to maintain enthusiasm—for teaching, working with students, re-imagining course content, and celebrating students' successes. Students need to know their instructor supports them and wants them to succeed. Importantly, attending to the personal role in college teaching is most effective when it is coupled with a focus on the instructional role (Lowman, 1995). In other words, caring is a part of effective college teaching, but not the totality. Supportive relationships between faculty and students are not a potential detriment to instructor rigor, but instead function as a conduit for students to master difficult material (Meyers, 2009). Constructivist perspectives (e.g. Vygotsky) assert that students' social interactions with a more knowledgeable person enable learning and development. This relationship is an important facilitator of learning because it provides support, encouragement, and assistance for students to develop higher-order learning skills and to integrate new information with their current understanding and past experiences (Daniels, Cole, and Wertsch, 2007).

Here are some approaches instructors can use to incorporate the five key ingredients in a college course:

- Creating a trusting, safe, and respectful learning environment must be established on the first day of class by defining this type of inclusive learning environment for students and having a policy in the course syllabus addressing it. Revisiting the definition can be valuable before class discussions of sensitive course content.
- Expressing care and concern for students' success in a course is as simple as checking in with students at the beginning of the class, and ask the following questions: How is your understanding of the course content discussed in the last lecture? Are there any questions or concerns you have about the course content before new course material is introduced? How are the course tools and course materials working for you in the class? This "check in" with students on a regular basis shows concern for their success in the course. Students will feel more comfortable asking questions or scheduling an appointment to clarify the course material. Setting an intention like this will help establish a positive learning environment for students.
- Helping students aspire to their educational and professional goals can be fueled by the types of assignments, small group work, class discussions, and student self-assessment exercises we design. It is important students "see" the value of having a solid foundation of course content that will build in future courses and the relevancy to their goals.
- Discussing responsibility—theirs and mine—on the first day of class helps lay the groundwork for a successful semester. This can be achieved by having a class discussion of the following policies in the course syllabus: methods of communication for instructor and students, student attendance, course preparation, student participation, instructor's office hours, and instructor feedback on course assignments and examinations. Establishing clear policies for the course creates a learning environment in which the instructor and students are on the same page about their responsibility for the course and rapport can begin to develop.
- Conducting regular self-assessments and creating new goals helps faculty maintain enthusiasm for teaching course content, supporting students, and facilitating students' success in the course. This self-reflection is paramount. It provides an opportunity for instructors to be mindful of what is effective and areas of need while working with students in a course. Reaching out to other colleagues, especially those with deep expertise in teaching and learning, provides great perspective and can help us address the course concerns in a positive way.

It is evident creating a respectful learning environment for students, expressing enthusiasm for course content, demonstrating concern for student success and maintaining responsibility for the course can make a difference in a student's course experience and their course success. As a new semester approaches, I will continue to be mindful of the key ingredients above to facilitate my students' success.

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Curiosity: The Force Within a Hungry Mind

Marilyn Price-Mitchell, PhD, *Edutopia*, Inquiry-Based Learning

Stimulate your students' curiosity by encouraging valuable questions and tinkering, looking for teachable moments, and building lessons around current events and critical thinking.

What makes children *want* to learn? According to research, it's the joy of exploration -- a hidden force that drives learning, critical thinking, and reasoning. We call this ability **curiosity**, and we recognize it in children when we see them exploring their environment, devouring books and information, asking questions, investigating concepts, manipulating data, searching for meaning, connecting with people and nature, and seeking new learning experiences.

The Heart of Lifelong Learning

Most teachers understand that curiosity supercharges learning. But they also know that many students can achieve high grades *without* being curious -- by understanding the system of test-taking and dutifully doing their homework. Curious children often spend a great deal of time reading and acquiring knowledge because they sense a gap between what they know and what they want to know -- not because they are motivated by grades. In fact, when kids are in curiosity's grip, they often forget the immediate goals at hand because they are preoccupied with learning.

If you suspect that curious kids fare better in careers and life, you're right, and for a variety of reasons. Research suggests that **intellectual curiosity has as big of an effect on performance as hard work**. When put together, curiosity and hard work account for success just as much as intelligence. Another study found that **people who were curious about a topic retained what they learned for longer periods of time**. And even more impressive, **research has linked curiosity to a wide range of important adaptive behaviors**, including tolerance of anxiety and uncertainty, positive emotions, humor, playfulness, out-of-box thinking, and a noncritical attitude -- all attributes associated with healthy social outcomes.

Curiosity is part of *The Compass Advantage*™ (a model created for engaging families, schools, and communities in the principles of positive youth development) because it is at the heart of lifelong learning. Curiosity not only gives children an advantage in school, but today's business leaders agree that it is also at the heart of thriving organizations.

Psychologists view curiosity as a life force, vital to happiness, intellectual growth, and well-being. It is interconnected with each of the other abilities on the Compass -- sociability, resilience, self-awareness, integrity, resourcefulness, creativity, and empathy. Like most human abilities, curiosity also has a dark side. After all, it did kill the cat! And without proper nurturing by teachers and parents, unregulated curiosity can lead students down rabbit holes that waste time, obstruct goals, or damage health.

The greatest advantage of curiosity lies in its power to motivate learning in areas of life and work that are meaningful to the learner. It points students toward the knowledge, skills, relationships, and experiences that they need to live full and productive lives. Curiosity is one of the 8 Pathways to Every Student's Success (Curiosity, Sociability, Resilience, Self-Awareness, Integrity, Resourcefulness, Creativity, Empathy).

10 Ways to Stimulate a Student's Curiosity

1. Value and reward curiosity.
   Often, the temptation is to reward students when their curiosity leads to a desired outcome or good grade. But it's more important to notice and reinforce curiosity when you see it in action. When you praise students by describing how their questions, explorations, and investigations are contributing to their own or classroom learning, you let them know that they are valued for their motivation, regardless of the grade they achieve.
2. Teach students how to ask quality questions.
   Quality questions are a vital medium for curiosity. Google is great at finding answers but doesn't stimulate the formation of questions. Good questions contain "why," "what if," and "how." An excellent book for understanding the art of questioning is *A More Beautiful Question* by Warren Berger.
3. Notice when kids feel puzzled or confused.
   Is there a "teachable moment" that will spark a desire to search for answers? How can you invite students to see problems as mysteries waiting to be solved?
4. Encourage students to tinker.
   Tinkering might be constructive play with feelings, concepts, ideas, and materials. How can students create a new widget, essay, blog article, poem, science experiment, service, or product from their explorations? Tinkering with materials, thoughts, and emotions stimulates curiosity and leads to innovative outcomes.
5. Spread the curiosity around.
   Create opportunities for more-curious and less-curious students to work together in **project-based learning**. Curiosity is contagious in groups working toward a real-world common goal, helping to cross-pollinate questions and new ideas.
6. Use current events.
   News reports can lead students to ask purposeful questions that help unearth what's beneath the surface of societal problems. According to research, asking "why" is the critical ingredient in unraveling these difficult conflicts. This often gets to the fundamental reason for why people disagree about solutions.
7. Teach students to be skeptics.
   The term **skeptic** is derived from the Greek *skeptikos*, meaning "to inquire" or "to look around." A skeptic requires additional evidence before accepting someone's claims as true. He or she is willing to challenge the status quo with open-minded, deep questioning. Galileo was a skeptic. So was Steve Jobs.
8. Explore a variety of cultures and societies.
   How is one culture or society uniquely different from another one? Encourage students to investigate their genetic or emotional links to other cultures. Why do they relate to certain beliefs or values that other societies hold?
9. Model curiosity.
   You can do this in your respectful relationships with students by exploring their interests, expanding upon their ideas, and engaging them in meaningful dialogue about what matters most.
10. Encourage curiosity at home.
    Help parents understand the importance of curiosity in their child's development and suggest ways that they can foster it at home. Supportive caregivers can have a tremendous impact on developing curiosity and other essential abilities.

Twenty Tips on Motivating Students

Few teachers would deny that motivated students are easier to teach, or that students who are interested in learning do, in fact, learn more. So how do teachers motivate their students? Here are some practiced, tried-and true strategies to get (and keep) your students interested in learning.

1. Know your students' names and use their names as often as possible.
2. Plan for every class; never try to wing it.
3. Pay attention to the strengths and limitations of each of your students. Reward their strengths and strengthen their weaknesses.
4. If possible, set your room in a U-shape to encourage interaction among students.
5. Vary your instructional strategies; use lectures, demonstrations, discussions, case studies, groups, and more.
6. Review the learning objectives with your students. Be sure students know what they are expected to learn, do, know, etc.
7. Move around the room as you teach.
8. Make your classes relevant. Be sure students see how the content relates to them and the world around them.
9. Be expressive. Smile.
10. Put some excitement into your speech; vary your pitch, volume and rate.
11. Give lots of examples.
12. Encourage students to share their ideas and comments, even if they are incorrect. You'll never know what students don't understand unless you ask them.
13. Maintain eye contact and move toward your students as you interact with them. Nod your head to show that you are listening to them.
14. Provide opportunities for students to speak to the class.
15. Be available before class starts, during break, and after class to visit with students.
16. Return assignments and tests to students as soon as reasonably possible. Provide constructive feedback.
17. Be consistent in your treatment of students.
18. Make sure that your exams are current, valid, and reliable. Tie your assessment to your course objectives.
19. Plan around 15-20 minute cycles. Students have difficulty maintaining attention after a longer period of time.
20. Involve your students in your teaching. Ask for feedback.

Five Key Ingredients for Improving Student Motivation

Student	Teacher	Content	Method/Process	Environment
• Intrinsic and extrinsic motivation • Various individual and social factors • Hierarchy of needs • Perceived well-being • Efficient use of energy and focus • Purposeful connection with work • Contentious-ness and achievement • Public speaking competence • Study time and study habits • Lecture attendance • Comprehensive, long-range educational plan	• Subject knowledge and moti-vational level • Teacher skills • Teacher qualifications • Test giving • Scientific management and human relations • Conscious of small details • Reach out to students • Know your students and build on their strengths • Value and build relationships • Relational turning points • Enthusiasm	• Students experience success and achievement • Student ownership • Student choices • Build competency • Creativity and critical thinking • Students feel connected • Novelty • Timely and relevant to real life • Variety • Technology and information from the internet	• Incentives • Experiential learning or self-learning • Mutual goals or objectives • Verbal conformity • Flexible and stimulating just-in-time training and interactivity • Different types of framing • Objective criteria • Encouragement and praise • Casework • Guided discussion • Reinforcement strategies • Positive social interactions • Storytelling • Enhanced lecture • Collaborative quiz	• Create an effective environment • Individual and learning system design differences • Include the study of self-information • Empowerment • Engagement • Consider student and teacher opinions • Teamwork • Structures • Distance and online learning • Emotionally literate environment

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The Key to a Better Learning Culture

- **All Groups are Not Created Equal**
  Some groups add up to more of the sum of their parts, others do not. Research that shows that more important than who is in the group, it's really about how the group works together.
- **Predictors of Group Performance**
  Research has been done to predict group performance. After ruling out expected variables (individual performance, group dynamics, tenure, age, etc.) it was found that the most important factor was *psychological safety*
- **Psychological Safety**
  The feeling that we can ask questions, speak up, and takes risks without being punished or judged
- **Myths of Psychological Safety**
  1. It's not just about being nice. It's about being honest and candid.
  2. It's not about lowering out standards. It's about keeping our standards high and allowing people to do the things that help them grow.
  3. It's not about saying everyone's job or position in the group is guaranteed. It's about being real about the nature of the work. The best way to add value to the group is to engage.
  4. It's not about depending on the higher-ups. It's about building local safety that can impact the culture within the group.
- **More Safety = More Learning**
  When we feel safe, we are more likely to engage in learning behaviors, like asking questions, speaking up, seeking feedback, taking risks, and trying new things. When we don't feel safe, the learning centers of our brain shut down and we are less likely to engage in learning behaviors.
- **How to Build Psychological Safety**
  1. Set the stage
  2. Invite engagement
  3. Monitor responses
- **Belonging Cues**
  Sending constant belonging cues to our people that they matter, they are seen, and they belong is essential. Cues are best sent through our actions.

Taken from the Learner Lab podcast with Daniel Coyle and Amy Edmondson

The Four D's of Problematic Classroom Behavior

Decorum	Disrespect	Disruption	Danger
Personal tolerance level – may not be a concern to some educators, some may see as disrespectful	Towards learning and learning environment, towards peers, or towards faculty in class or online, may overlap with disruption	Interferes with learning – may include some disrespectful behavior and/or could escalate to dangerous behaviors	Putting individuals or self at risk – may be in class, online, or on campus
• Inappropriate clothing • Texting during class • Playing games on devices • Reading newspaper or other non-related materials • Doodling/drawing • Wearing a hat • Putting on makeup, brushing hair, doing nails • Eating or drinking • Surfing web or emails not relating to class • Chewing gum	• Coming to class unprepared • Not attending class • Making unreasonable or repeated excuses for not having work done or missing class • Demanding grade change • Cheating or plagiarism • Non-compliant behaviors • Asking for unreasonable extensions • Rude behavior • Sleeping in class • Discriminatory/racist comments or behaviors • Inappropriate language – swearing, culturally insensitive	• Non-productive talking in class • Interrupting others • Arriving late or leaving early • Movement or noise that disrupts class • Cell phone ringing or talking on cell • Dominating class discussion • Embarrassing or non-appropriate argumentative questioning • Asking the same question repeatedly or going off on tangents • Attention-seeking behaviors • Coming to class under the influence of drugs or alcohol	• Aggressive comments • Angry comments • Threatening comments • Emotional outbursts • Escalating or explosive behaviors • Violent behaviors • Signs of potential self-harming or suicidal behaviors • Physical destruction of property • Active shooter
Action	**Action**	**Action**	**Immediate Action**
• Have behavioral statements in syllabus and review them in class. • Provide texting/email breaks during class. Consider integrating the technology into your class • Consider your own tolerance level. Pick your battles. Is this really something you need to concern yourself with?	• Have behavioral statements in syllabus and review them in class. • At first indication of specific behavior, remind entire class of appropriate behavior and what next steps will be. • Contact specific student and set up time to meet and address issue – if student does not follow up, contact Dean of Students or appropriate university service. • Follow university policies regarding plagiarism, cheating, grad change appeals, etc. including reporting to Dean of Students.	• Have behavioral statements in syllabus and review them in class. • At first indication of specific behavior, remind entire class of appropriate behavior and what next steps will be. • Contact specific student and set up time to meet and address issue – if student does not follow up, contact Dean of Students or appropriate university service. • May need to refer to student support services – Disability Support Services, Counseling as issues may involve emotional/behavioral problems.	• **Call campus police, security, and/or Dean of Students office** • **Activate university safety procedures**

Growth Mindset

Feelings of accomplishment

Develop persistence

Extend your comfort zone

Self-actualization

Feelings of uncertainty

Find excuses

Comfort Zone

Ambiguity Zone

Learning Zone

Growth Zone

Feel safe and in control

Affected by others' opinions

Deal with challenges and problems

Set new goals

Lack confidence in own abilities

Acquire new skills

Find purpose

Conquer objectives