



UNIVERSIDAD DE
COSTA RICA

Tools to Help Students Maximize Their Learning

Mariela A. Porras-Chaverri, Ph.D.

mariela.porras@ucr.ac.cr

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Participants in the learning process

We are aware of our key role as bridges in our student's learning

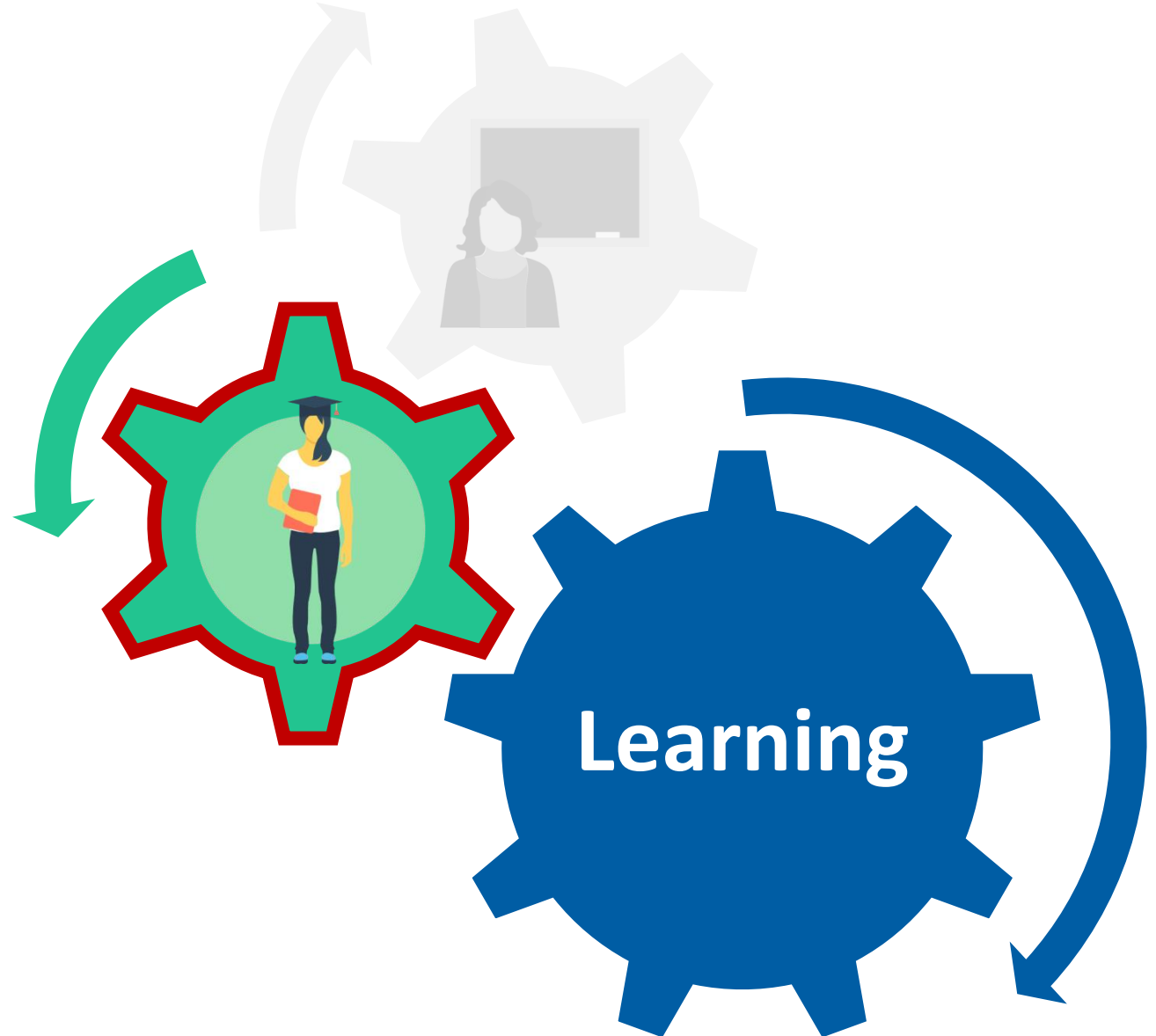




Participants in the learning process

The student's role is just as important as the instructors (if not more!)

Our guidance is necessary!





Our Students



- Graduate/Undergraduate
- Successful
 - Achieved Higher Education
 - Good Grades
 - Competitive Graduate Programs
 - Competitive Residencies
 - Clinical, Academic and Industry positions
- Will encounter different challenges in their work (21st century)
- Carry non-efficient learning techniques from their past
 - Mostly from trial-and-error
 - Bad habits from former teachers
- **Are not even aware they are not using their full capabilities**



Efficient Learning

- Efficient: *capable of producing desired results without wasting materials, time, or energy*
 - Long term retention and recall of knowledge
 - **Efficient use of time:**
 - Student's time
 - Instructor's time





Our Motivation

Guide our students to take full advantage of our teaching:

- Is part of our job
- We want our students to be life-long learners
 - Make a positive impact during their professional lives
- If we are to make learning more efficient we must also guide our students on how to best take advantage of our teaching
 - **Else all our efforts will be lost!**



Review of Learning Strategies - Common Techniques

Rereading



- Easy to implement
- Results may not be longlasting
- Best if used along more active strategies

Highlighting / Underlining



- Gives a sense of progress in covering material
- May hinder connection of ideas across the text
- OK as starting point

Summarization

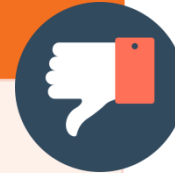


- May require guidance to do good summaries
- Requires more time than other more successful strategies



Review of Learning Strategies - Mental Imagery

Keyword Mnemonic



- Association to keywords and imagery
- Good to learn vocabulary
- Benefits may be short-term

Imagery for text



- Mental images
- Enjoyable
- Benefit may be short-term
- Requires more time to implement



Review of Learning Strategies – Active Reading

Elaborative Interrogation



- *Why?*
 - OK if answer is not precisely correct
- Improves understanding and retention

Self-Explanation

- *How is this related to previous knowledge?*
 - \neq paraphrasing
- Active processing of material
- Links to previous material



Review of Learning Strategies – Mindful Practice

Practice Testing



- Tests as a learning tool
- Recall from memory
 - More than once!
 - Long-term benefits
- May be implemented in note-taking
- Helps assign priority to contents



Distributed Practice



- Spread activities
 - Opposed to massed practice
- Same amount of time to massed practice
- Longer-term benefits!

Interleaved Practice



- Similar to distributed practice
- Mix across subjects
- Removes 'illusion of learning'
- More research needed

Summary

Most efficient:

- Practice testing
- Distributed practice
- Interleaved practice

Complement with:

- Elaborative interrogation
- Self-explanation

- Other techniques may be OK, but not as good use of time and less long-term recall 😞





References

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