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Moving Beyond Memorizing: Fostering Conceptual Learning Strategies in College Students

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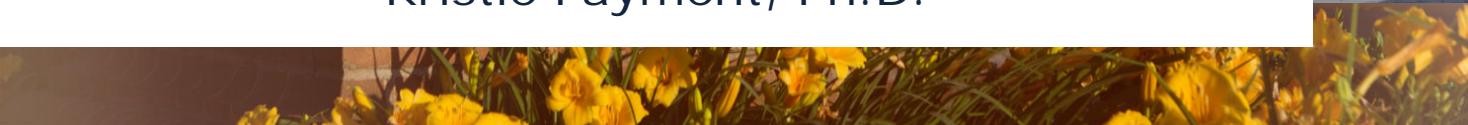
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Moving Beyond Memorizing: Fostering Conceptual Learning Strategies in College Students

Kristie Payment, Ph.D.



Matching Test

1. Soptunna

A. en tillfällig struktur på utsidan av en byggnad, vanligtvis gjord av träplankor och metallstänger, som används av arbetare vid byggnad, reparation eller rengöring av byggnaden.

2. Byggnadsställningar

B. en sötad fryst mat som vanligtvis äts som snacks eller efterrätt.

3. Glass

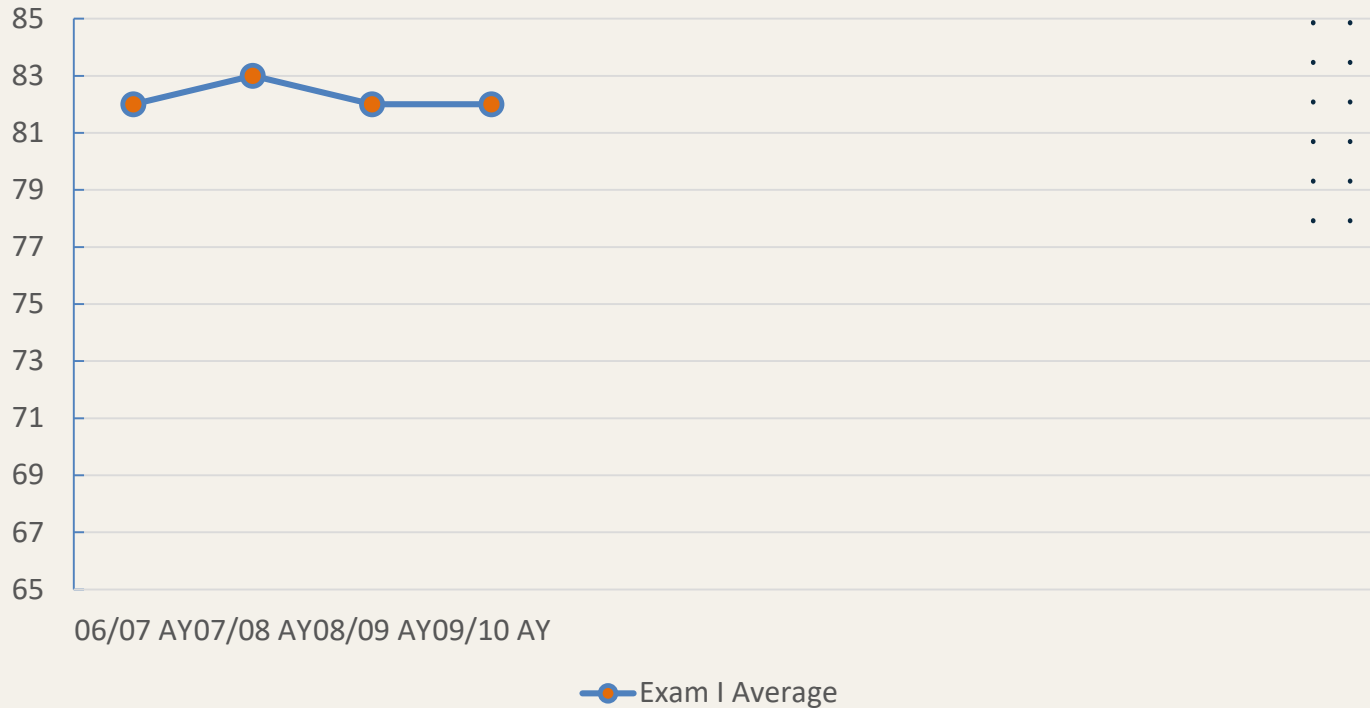
C. en stickpensel med styva eller mjuka ekrar som används i hårvård för att jämna ut, utforma och ta bort människohår.

4. hårborste

D. ett stort papperskorg som är utformat för att lyfta och tömmas i en lastbil.

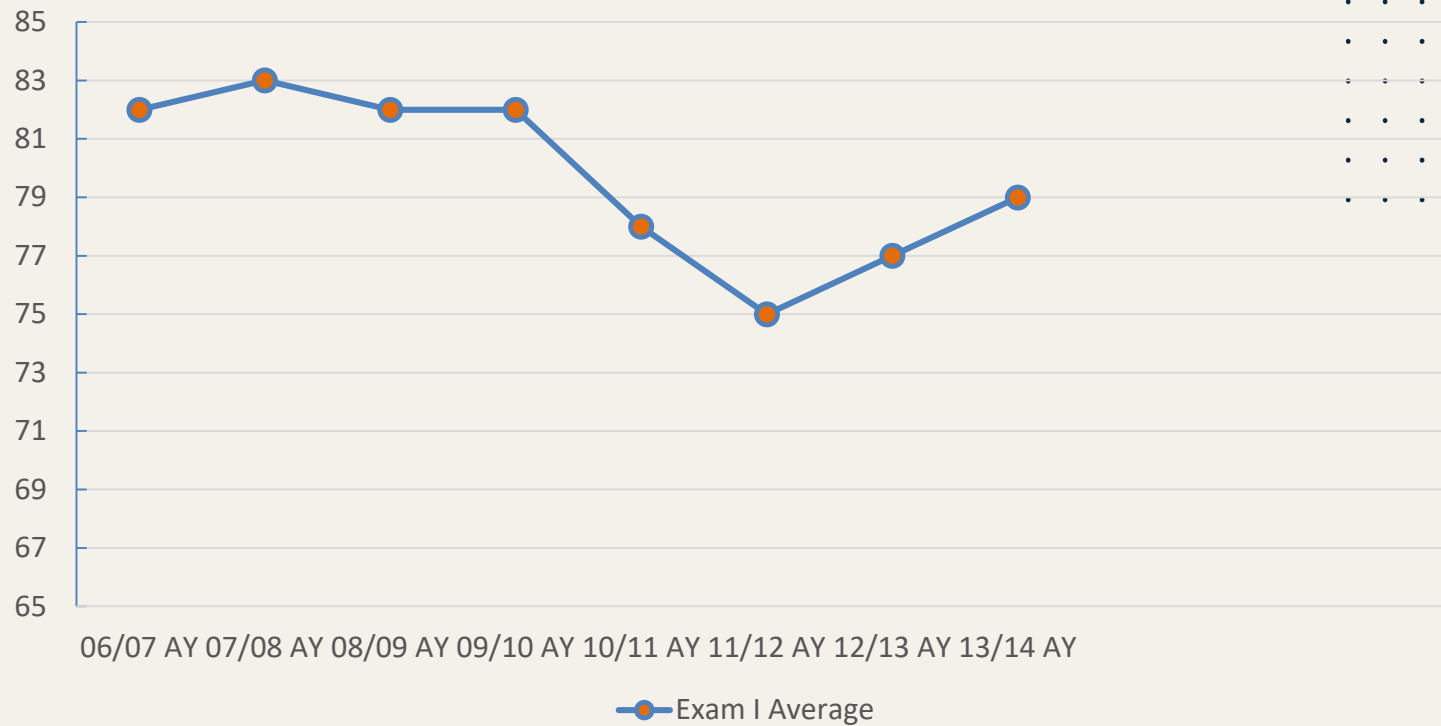
Average Scores on First Exam

Introduction to Psychology Exam One Average



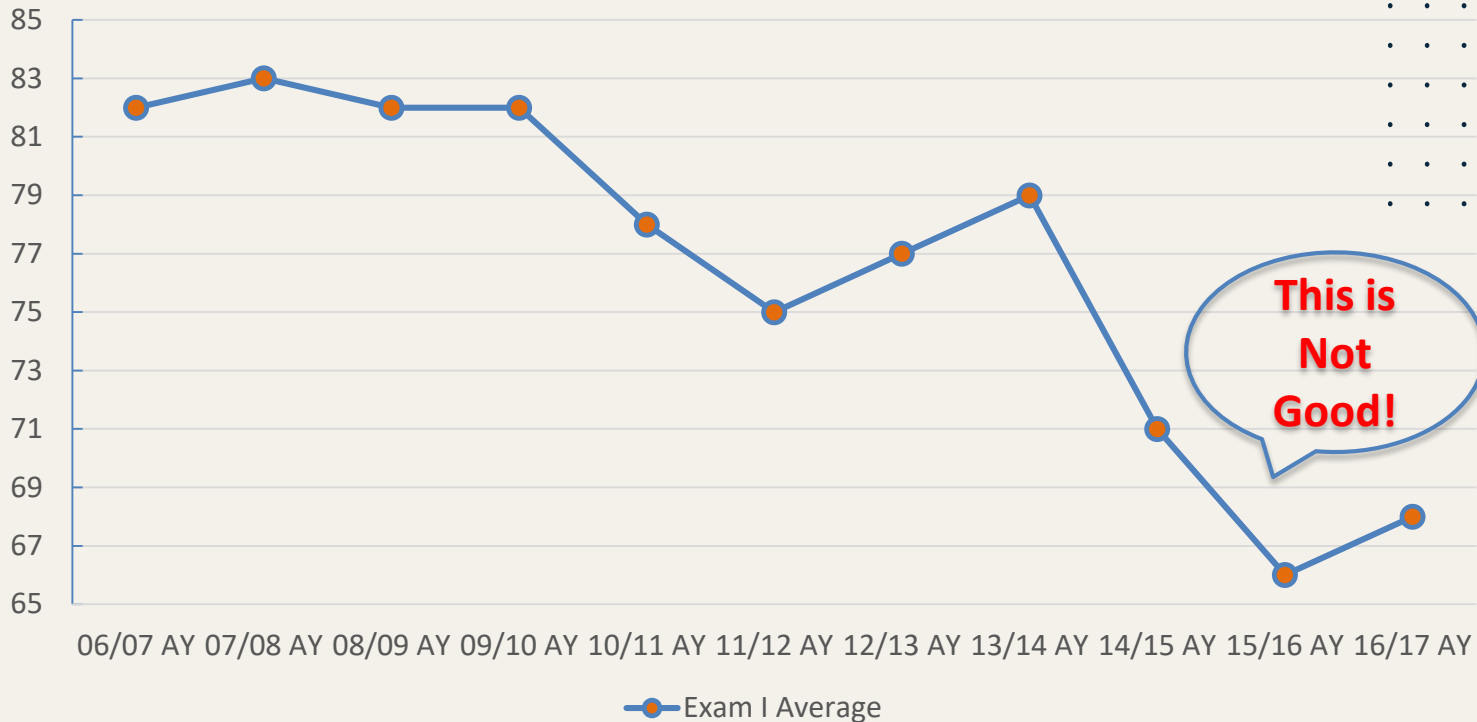
Average Scores on First Exam

Introduction to Psychology Exam One Average



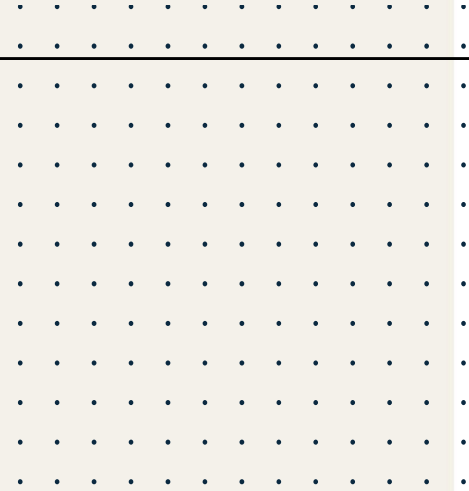
Average Scores on First Exam

Introduction to Psychology Exam One Average



Academics won't be a problem!

- I was **valedictorian!**
- I was a **straight A** student!
- I have **never** really **needed to study!**



What **generally contributes** to a student's poor performance?

- 1) Don't realize change is needed.
- 2) Don't know what "conceptually-based exam questions" means.
- 3) Don't know how to adapt what they do in order to learn material in this way.

Discuss these questions:

- **What** do current college freshman do to study?
- **How much time** do they spend studying?
- **When** do they start the study process?

From my undergraduates:

- Top responses to the “**How** I Study” Question
 - I **make ID** cards with term and definition and **reread** them (by hand or using Quizlet).
 - I **reread my notes** several times the night before the test.
 - I **rewrite/retype my notes**
 - I **reread** my ID cards and then **self-test**.

From my undergraduates:

- Top Response to “**When** do you start and **how long** do you spend studying” Questions
 - I usually start **the night before** the test, sometimes two nights before.
 - I usually spend **an hour** studying for the test.

Why don't my strategies work?

- The types of **exam questions** are often **different**.
- Their method **works well for a rote memory** test, but **NOT** for a conceptual one.
- Just **telling students** that our questions will be application based **doesn't work**.

Steps in the Intervention:

1) Get Buy-In:

- They need to see the connection between their current strategies and the low test scores.

1) Note-Taking Tips:

- **In Class:** Write down both the definition and the examples!
- **After Class:** Review your notes: this helps find “holes”, points of clarification, clear up examples.

Rote Memory Question:

Cognitive Dissonance Occurs When:

- a) The attitude toward something and the behavior towards it are consistent.
- b) The attitude toward something and the behavior towards it are inconsistent.**
- c) When a person has no attitude towards an object/situation.
- d) When a person is unsure of his/her attitude towards an object/situation.

Conceptual Application Question:

Which of the following situations should produce the **GREATEST** cognitive dissonance?

- a) A soldier is forced to carry out orders he finds disagreeable.
- b) A student who loves animals has to dissect a cat in order to pass biology.
- c) A student volunteers to debate an issue, taking the side he personally disagrees with.
- d) As part of an experiment, a participant is directed to deliver electric shocks to another person.

When we just memorize:

- Don't think of what the words you are reading actually **mean**.
- Rereading leads to **faster recall** which often creates a **false sense of security**.
- Self-Testing: the “**I'll know it when I see it**” effect!

Studying for Tests:

- **Avoid Automatic Mode:**
 - Don't reread and rewrite mindlessly!
 - Memorize the definition but then **STOP** and think about what those words actually mean!
 - Explain it to someone else

Studying for Tests:

- **Connect Concepts to Examples:**
 - Can you **explain why** this example illustrates this concept?
 - Make your own example.

Studying for Tests:

- **Spread Out the Studying:**

- Don't cram all in one night – you get tired and bored and lose focus.

- 1 hour over 3 nights is much better than 3 hours in 1 night! (The “**spacing effect**”)

Studying for Tests:

- Miscellaneous other tips:
 - Make material **personal** if possible.
 - Use **imagery** if it helps you.
 - **Organize** your study sheets so they make sense to you.

The Take Away Message!

- **Slow down** and be sure to **think** about what the words actually mean.
- This approach to studying **automatically fosters learning** the material at the **conceptual level**.

Remember on the test my questions:

Aren't like this:

A biological growth process that is relatively uninfluenced by experience and that enables orderly changes in development is referred to as:

- A. continuity
- B. imprinting
- C. maturation
- D. fixation

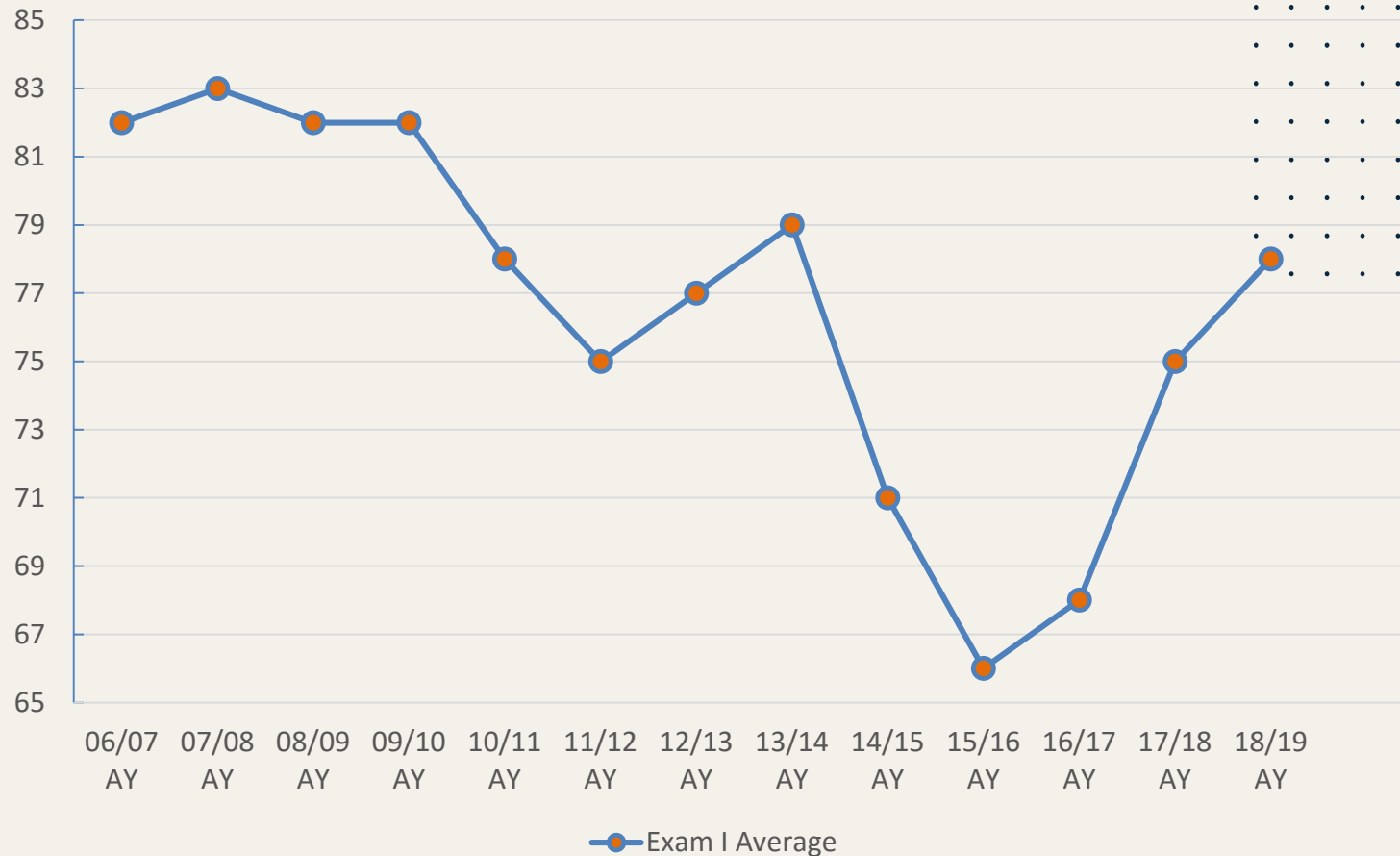
Are like this:

Professor Delano suggests that because people are especially attracted to those who are good-looking, handsome men will be more successful than average-looking men in getting a job. The professor's prediction regarding employment success is an example of

- A. hindsight bias.
- B. a hypothesis.
- C. the placebo effect.
- D. illusory correlation.

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Questions?



Thank you for your attendance!

We would appreciate your feedback—please fill out an evaluation using the link above.

