

# GAUGING STUDENT INTENTION TO USE METACOGNITIVE STRATEGIES

Scholarship for Excellence in Teaching Cohort 2021

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# PART 1: PROBLEM

**The ABC Rate of General Psychology Students Must Increase**

**An Academic Coach's Perspective**

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# The ABC Rate of General Psychology Students Must Increase

## Basis for Research

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- Teach principles of **metacognition** to increase student success: “The ability to think about thinking; be consciously aware of oneself as a problem solver; monitor and control one’s mental processing (e.g., ‘Am I understanding this material?’); and accurately judge one’s level of learning” (McGuire & McGuire, 2015, p. 200).
- “Given the increased use of smart phones with this generation, it is advisable to integrate **mobile technology** in online learning and QR codes can be one of the ways to integrate that in the course materials. It is further recommended that to increase the perceived enjoyment of the students with the online learning, the lecturers might be encouraged to use videos, audios and instant messaging to contact and provide the feedback to the students” (Maheshwari, 2020, p. 6629).



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# PART 2: STRATEGY

**Incorporate Metacognitive Strategies via Coaching**

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# Strategy

## Incorporate Metacognitive Strategies and a Survey



The following steps were designed to enable an Achieving the Promise Academy (ATPA) Embedded Coach to enhance student understanding and success:

1. Introduce ATPA program, self, and study session times to four classes via Zoom.
2. Create a short video titled “News You Can Use: Metacognition & Metacognitive Strategies” via Zoom recording (Video 1).
3. Create a 10-item survey (with space for reflection, link, and Q/R code) via MS Forms to be taken at the beginning of the semester and week before finals.
4. Send weekly electronic invitations to study sessions with attached video or video link and the survey link via Microsoft Calendar (Outlook).
5. Send weekly text notices via Remind.
6. Replace Video 1 With Video 2: “Metacognition: The Skill That Promotes Learning” mid way and keep the same survey.



- H1 = The number of respondents will increase. H2 = There will be an increase in “very likely” scores.





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# PART 3: SCHOLARSHIP

**Metacognition: “Thinking About Thinking”**

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# “Student Preparation & Metacognition & Student Empowerment”

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Metacognitive Strategy 1, Step 2: “Once you’ve looked at the bold and italicized text as well as charts and graphs ... **You need to give yourself a reason to read ... you need to come up with questions that you want the reading to answer for you ...**” (McGuire & McGuire, 2015, p. 47).

“[Q]uestions are so important that we cannot learn until the right one has been asked: if memory does not ask the question, it will not know where to index the answer” (Bain, 2004, p. 31).

“Students who reflect on their learning are better learners than those who do not. Being aware of oneself as a learner and constantly monitoring the effectiveness of one’s learning involves metacognition ... Metacognitive strategies require activity on the part of the learner ... **Teachers can help students develop the metacognitive strategies that enable them to exert more control over the quality of their learning**” (Barkley & Major, 2020, p. 52).





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# PART 4: ASSESSMENT

**Comparing Characteristics of Classes**

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# 1<sup>st</sup> Coaching Survey: No Responses to 2<sup>nd</sup> Coaching Survey

10 Items: On a scale of 1 to 5 (where 1=very unlikely; 5=very likely), select the number that best describes your intention to use a particular strategy this week.

No reflections recorded. **One intention was shared by all.**

The screenshot shows a survey titled "Emerging Scholars Survey - @psycst". It includes a scale from 1 (very unlikely) to 5 (very likely) and a list of 10 items for rating. The items are: Planning, Previewing, Preparing for Active Reading, Using the Textbook, Monitoring, Going to Class, Taking Notes by Hand, Evaluating, Working With a Partner or in a Group, and Reflecting. Below the items is a section for "Reflecting: Any thoughts, comments, or suggestions?" with a text input field.

2/30 psycst respondents rated 2 items very likely (5):  
**Going to class:** I will go to psychology class. **Evaluating.**

1/12 psycstu respondent rated 3 items very likely (5):  
**Previewing. Preparing for Active Reading. Going to Class:** I will go to psychology class.

2/30 psycstud respondents rated 8 items very likely (5):  
**Planning. Previewing. Preparing for Active Reading. Using the Textbook. Monitoring. Going to Class:** I will go to psychology class. **Taking Notes by Hand. Evaluating**

1/30 E.S. respondent rated 7 items very likely (5):  
**Planning. Preparing for Active Reading. Monitoring. Evaluating. Going to Class:** I will go to psychology class. **Taking Notes by Hand. Working With a Partner or in a Group**

# Variables & Class Characteristics

## Coaching Class Activities

<b>Coaching—Fall 2021</b> Students' Activities ...	Course Mail*	Discussion Board*	Remind Receiver s	Video 1 & Survey	Video 2 & Survey	St. Sessions & 15-Min Chats
Class 1—XX655—psycst	<del>7</del>	<del>0</del>	1	2	0	✓
Class 2—XX657—psycstu	7 (1)	0	2	1	0	✓
Class 3—XX659—psycstud	12 (2)	313	4	2	0	✓
Class 4—XX664—no Remind	2 (2)	<del>313</del>	<del>4</del>	1	0	✓

\*The number of times messages were sent via Course Mail & posts were submitted via the Discussion Board indicates Blackboard activity for the class.

These numbers also demonstrate the variability among classes. A total of 28 Remind texts were sent. A total of 104 electronic invitations were sent weekly. The data do not lend themselves to statistical analyses; however qualitative data do provide sufficient information to devise future studies.



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# PART 5: WHAT TO DO & NOT DO

**Future Studies: Final Analysis & Recommendations**

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# Future Studies

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- Address the role of embedded coaches in increasing the ABC rate of PSYC 102 students.
- Determine components for quantifying that increases in likelihood—that students intend to use metacognitive strategies—supports the intention-behavior relationship.
- Standardize survey items on intention to improve behavioral enactment.
  - For example: “Meta-analysis indicates that forming an **implementation intention** improves rates of behavioral enactment and goal attainment compared with the formation of a behavioral intention on its own” (Webb & Sheeran, 2006, p. 262).
    - The Coaching Survey Item “Going to class: I will go to psychology class.” is insufficient. **“Implementation intentions are plans that specify when, where, and how one will perform goal-directed behaviors and take the format If situation Y arises, then I will perform behavior Z!”** (Webb & Sheeran, 2006, p. 262).



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# PART 6: REFLECTION

Lessons Learned

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# Final Thoughts

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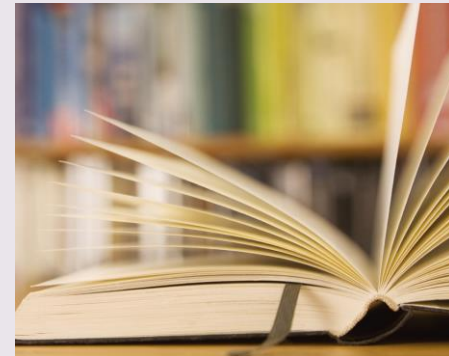
## On My Research Project

I appreciate (a) learning about different technologies needed for the project and (b) being in the student's shoes in developing and having to report on this project. Having to read, "rite," and respond by deadlines not controlled by me enhanced my understanding of what students encounter and how to enhance specific teaching skills. In other words, **clarity is king when asking students to perform any task.**

## On My SET Experience

I feel grateful for having had the opportunity to work with the 2021 cohort. Among my most favorable experiences:

- being part of a special and smart community;
- exchanging scholarly & personal perspectives for possible solutions; and
- **receiving books in the mail**, which was so exciting and always brought a smile to my face!



# Top 4 Lessons from the School of Hard Knocks

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Remember when implementing a study or incorporating new elements into your curriculum:

1. Listen to your students to learn what they lack or need (i.e., don't assume).
  - No amount of mobile technology replaces students' internal motivation.
2. Students must be incentivized.
  - Grade for participation.
  - Support the coach/researcher.
3. Not everything is for everybody.
  - Recognize what is already working and be open to tweaking.
  - Do not try all items recommended by an author.
4. Don't take lack of participation personally.
  - Does it really matter if a student didn't open (or spent <2 sec reading) your email?



**THANK YOU FOR  
YOUR ATTENTION!**





# References

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