Empowered Learning Systems in Student Success

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“Achievement gaps between the top and bottom deciles and the top and bottom quartiles of the SES distribution have been large and remarkably constant for a near half century. These unwavering gaps have not been offset by overall improvements in achievement levels, which have risen at age 14 but remained unchanged at age 17 for the most recent quarter century. The long-term failure of major educational policies to alter SES gaps suggests a need to reconsider standard approaches to mitigating disparities.” - Hanushek 2009
We are teaching students to be knowledgeable but we are not teaching students to be wise.

-Vita Quintanilla 12th Grade Student

“The educator has the duty of not being neutral.”

—Paulo Freire, We Make the Road by Walking: Conversations on Education and Social Change
Introduction: The Research Problem

- Researchers, school districts and government officials reference an “achievement gap,” assigning many short-term pilot programs to mitigate perceived problems of student performance (Porter, 2007) with conflicting approaches and perspectives.

- Underachievement is approached inefficiently and misunderstood. (Anderson, Medrich, E. and Fowler, 2007). This term is most often used referring to the difference in academic achievement between student demographic sects, minority student scores and learning benchmarks.

- Students’ psychological metacognition-their awareness of their own mental processes-is ignored in the public learning space, even though it drives behavior.

- There is no system-wide approach to this problem. No uniform collaboration between teachers, school districts, political figureheads, and students themselves.
Research Gap & Purpose

At the onset of this thesis, little had been done to understand student awareness of their existing beliefs and internal dialogue from their perspective, or to the extent to which they are able to address negative beliefs and internal dialogue that interact with self-image and by extension, with learning.

The Purpose of this Study:

This study sought to understand the internal territory of student metacognition, inquiring whether and to what degree students were aware of and able to navigate internal beliefs and the linguistic expressions thereof.
Literature Review

- **Theoretical Frameworks contributing to this study:** Maslow and Rogers Self Concept, Self Actualization, Bandura’s Social Cognitive theory and theories of self-regulation, Dweck’s Implicit Theories of Intelligence (Growth Mindset), Weiner’s Attribution Theory, Mezirow’s Transformational Learning Theory, and Personal Epistemology.

- **Synthesis of Literature:** Human beings are constantly self-monitoring (Bandura, A. 1991) and need both self-awareness and strategies for knowing how to regulate their behavior. The mind is linguistic, and makes meaning of the world through attribution (Weiner, B. (1972), assigning causes to life events to answer the “why” - this process of meaning making constructs systems of neurolinguistic information and maps (Bandler, R., & Grinder, J. 1975) that drive self-image and behavioral/performance outcomes. (Dweck, C. S., & Leggett, E. L. 1988)

- As academic underperformance has been linked to negative self-image, then helping students change educational outcomes requires greater attention placed on not only on student awareness of the mind-behavior connection, but also whether students have tools for internal agency.
Premises

- One’s internal perception of ability is directly linked with their capacity to take action.
- Critically examining beliefs about oneself has the potential to cause radical shifts in academic confidence and behavior but can only lead lasting change when one knows how.
- For any system-wide change in academic performance, students need both metacognitive awareness of their internal mental processes and strategies for taking new actions to effectively change predictable performance outcomes.
Design of the Study

Exploratory–mixed methods: Anonymous survey and two focus groups

Location: Inner-city high school in San Francisco

Sample Size: 116 high school students, diversity of ethnicities and nationalities, ages and grade levels, gender orientations and learning levels.

Google Survey: 106 students 9-12th

Focus Groups: 10 students 12th grade
Research Questions

This study focused on student responses to a question series, presented in both survey and focus group format for ease of implementation and breadth of substantive data. To this end, the survey and focus group questions were formed from considering the following central questions:

1) What are students' existing beliefs about themselves and their own learning?

2) In what ways are students aware of the ways in which their beliefs and internal dialogue interact with learning?

3) What internal dialogue about personal abilities do students use in moments of challenge?

4) What strategies do students currently have for navigating negative narratives or disempowering internal dialogue and how/when do they utilize them?
Findings

● Student responses suggest that there is metacognition, but not metacognitive agency.

● Students were aware of their beliefs about themselves and patterns of internal dialogue but do not have strategies for transforming negative patterns that impact self-image.

● Students expressed a desire to transform specific negative beliefs but no explicit strategies for achieving this.

● Students intuitively categorize their internal dialogue into positive or negative, disempowering (limiting sense of agency/authority) to act or empowering (enhancing their sense of authority) to act.

● 100% of students who participated in this study referenced negative beliefs to some extent.

● Over 78% of students directly linked patterns of thinking as immediate drivers of academic performance.
Empowering/Disempowering Internal Dialogue

Empowering Internal Dialogue: Systems of meaning that provide greater power, self-confidence and agency,

Disempowering Internal Dialogue—Deprive and limit a person's sense of power and authority over one's own psyche.
Empowered Internal Dialogue

- If you think positively, then you might feel more determined or motivated to learn.

One pattern is I have to try my best and to not act like the students who don't care about the school, this make me feel responsible.

- I'll be nobody without knowledge. It's useless to work without a purpose.

- If you apply yourself you can get all A's.

- The one pattern of thinking I have about my academic capabilities is that I'm unstoppable when I set myself to achieve a goal. It makes me feel I have every potential on reaching my dreams.
Disempowered Internal Dialogue

- “Putting thought into academic work makes the work seem harder. If I am in a dark place mentally, I would be disinterested in everything that revolves around academics.”

- “If I don’t fully understand what I’m learning in class and I continue to not get it then I start to put that doubt in my mind and begin to not even want to do the work at all because in my mind it makes no sense to do if I’m going to get everything wrong anyways.”

- “One pattern of thinking is that I constantly think I’m going to fail my classes. I start to actually believe myself when I say it so much. This thought sort of automatically comes to my work, if I even think I got something wrong or I don’t understand something I think I’m going to fail that test, lose points, or just fail the class.”

- “During class, I automatically think I don’t understand whatever the teacher is saying. I eventually understand what the teacher is saying though. I say I don’t understand at the first time because I have low standards for myself and don’t think I’m smart enough.”
No Strategies For Coping

- I don't have any strategies for dealing with frustrations so, what I usually do to calm myself is to listen to some music.

- No, definitely not. I still cry myself to sleep over a bad test or punch a wall when I end the semester with a B.

- Honestly my strategy is to either rant to someone or furiously scribble manic ideas on a piece of paper or type until I’m less angry

- Go home, sleep, or play video games until the pain goes away.

- Talking to someone you trust definitely helps. It's best if that someone you talk to is someone who will listen to your concerns seriously.
Strategies Continued

- I just listen to music or try not to worry about it too much. I think it'll help if you distract yourself and do something you like, like a sport or something.

- The strategy I use is smoking weed outside of school. But inside school there's nothing I could do if I'm frustrated.

- My strategies are go for a walk, sleep, or watch YouTube and listening to music.

- Not really but I was raised to not make a tantrum or yell at anyone so I bottle things up and stay silent but once in a while I talk about how I feel.

- I have found that letting out my emotions doesn't work because it makes me feel sorry for myself which isn't the mindset I should have towards school.
Desire for Change

“I would like to change how negative I am because personally I’m very negative about life. My habits, because over time I never really gave much attention due to the usual thought of "oh new school im probably gonna move to another school soon so why care and do the work?"

I would like to change my self doubt about assignments. Overall I am confident about school, but each individual assignment always feels like I am scaling a new mountain. I would like to change my attitude so that I doubt my ability to do the assignment less.

I would like to change that when I get a bad grade I won’t be going anywhere in life because that’s not true and I know it but I’m the heat of the moment that’s what I think.

I would like to change the belief that I would actually do the work "later".

My procrastination habit. I feel like it gets worse every year and it’s stopping me from getting sleep.

I want to change my belief that I cannot complete certain things (academically-wise) because of certain circumstances. For example, if I have a group project, and end up working with people that don't want to work at all, I want to change the belief that I will get a bad grade.
Implications

- If students do not have strategies to transform disruptive thoughts autonomously (metacognitive agency) they lack the capacity for new action.

- Given students had been exposed to Mindset Interventions, responses show the ineffectiveness of Mindset.

- This thesis proposes the formation and implementation of empowered learning systems: explicit instruction of techniques and practical strategies for achieving metacognitive agency.

- Students should be taught how to address and change, not just identify, negative beliefs that impede learning.

- For students to achieve their highest potential in school and life, they need instruction that aims to cause metacognitive agency, or the ability to reform negative beliefs about self and the internal dialogue autonomously.

- This also necessitates that both educational policies and classroom teachers recognize student self-awareness and psychological empowerment as the prerequisite of learning success.