

Land Acknowledgments

We invite you to recognize the written histories of the Shenandoah Valley, the City of Harrisonburg, and our university's namesake, James Madison, as fractured.

We acknowledge that our university is on the land of the Indigenous Siouan, Algonquian, and Haudenosaunee communities who lived here for many generations and who continue to be systematically erased by policies and practices that remove their histories from our place.


Let us also honor the enslaved peoples who built the wealth and foundation of James Madison.

Let us recognize the histories of Virginia and the United States as complicit with the racism of white supremacy.

We recognize that these difficult histories persist in present-day racial realities and privileges at JMU. We commit to dismantling racism in spaces of our work. We invite you to work beside us to create change.






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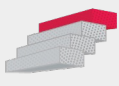

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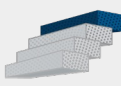




**Step-by-Step Student Success:
Integrating Noncognitive Assessment, Predictive
Analytics, and Student Support**

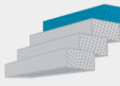
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Session Learning Objectives

1. Identify three noncognitive factors relevant to student success;
2. Describe the value of noncognitive factors in predicting academic success and persistence;
3. Identify two tactical approaches for including campus constituents into a holistic student success strategy



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Session Outline

Overview of JMU context

Step 1: Research

- Exploration of what contributes to student success
- Introduction to noncognitive factors

Step 2: Develop Recommendations

Step 3: Design Phase

- Institutional example of integrating noncognitive factors into student success

Step 4: Implementation Phase

- Introduction to change management
- Institutional examples of strategies for campus community engagement



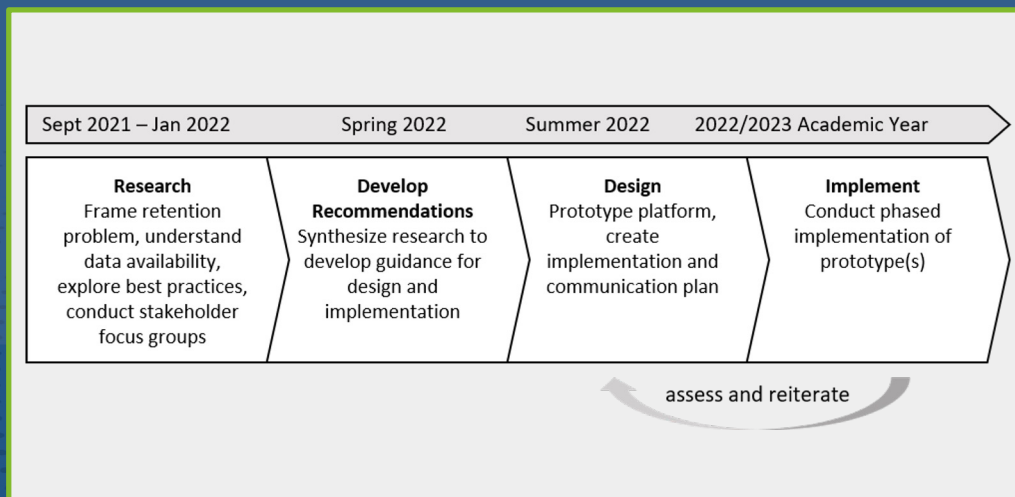
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Our Step-by-Step Process



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James Madison University Context



Fall 2022 facts and figures:

- 20,346 undergraduate and 1,878 graduate students
- Public R2 university located in Harrisonburg, VA
- Majority in-state (79%), women (59%), and white (88%)
- 89.2% freshman retention rate (Fall 2021 cohort)

Accredited by Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)

- On-site review for reaffirmation of accreditation took place April 2023
- Quality Enhancement Plan (QEP) work began in Fall 2021
 - Theme: "Early Alerts: Improving Retention and Closing the Equity Gap"



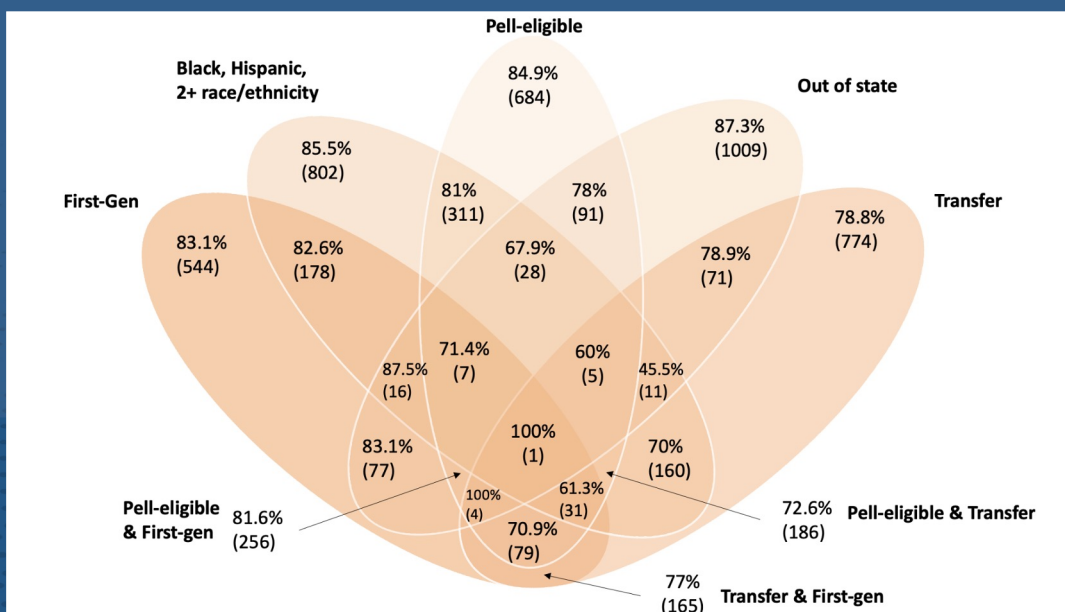
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89.2% Retention Rate (2021)



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Step 1: Research Phase



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4 Pronged Research Phase

1. **Literature review** of themes of equitable student success & retention, data analytics, learning analytics, early alert systems, data privacy, data governance
1. **Institutional data analysis** of data set of all students over last five years for equity and retention trends
1. **Peer institution interviews** with colleagues from three institutions on the use of data analytics for student success and addressing equity gaps
1. **Focus group research** to understand stakeholders' perspectives and needs as related to indicators of student success and risk



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Focus Group Categories and Participants

<i>Focus Group Category</i>	<i># Focus Groups</i>	<i># Participants</i>
Academic Support Faculty/Staff	5	19
Academic Advisors (<i>full-time, faculty, first-year, transfer, athletic</i>)	4	16
Academic Support Partners (<i>ODS, SMLC, UWC</i>)	1	3
Academic Affairs	8	51
College Leaders (<i>deans, assistant deans, department heads</i>)	2	4
All Faculty	4	38
Graduate School Faculty	2	9
Student Affairs Staff	7	30
Leaders (<i>directors, assistant directors</i>)	2	9
On-Boarding (<i>admissions, orientation, ORL</i>)	1	2
Well-Being (<i>counseling center, DOS, OSARP, UHC, UREC</i>)	3	16
General Student Affairs	1	3
Other Faculty/Staff	4	17
DEI Partners (<i>CMSS, SOGIE, ISSS, DEI positions</i>)	2	6
Administrative Offices (<i>financial aid, registrar, UBO, etc.</i>)	1	8
General All	1	3
Students	13	15
TOTAL	37	132

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From your perspective, what indicates that a student is successful?

Create groups of 3-4

Introduce yourself and the function(s) or perspective(s) you represent

Have 1 group member submit your responses by scanning the QR code OR going to www.menti.com and use code 1918 5853



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Research Findings: Why are students leaving?

- Mental health is a top concern for all students, regardless of identity.
- Historically marginalized students are more affected (proportionally) by finances and sense of belonging.
- Academics alone are rarely a point of worry for students who choose to leave JMU.

Reasons students have left JMU
(Spring 2017-Fall 2021)

Reason	Frequency	Percent
Transfer	230	15.7%
Psychological	204	14.0%
Leave of Absence	190	13.0%
Fit/Belonging	157	10.7%
Health	136	9.3%
Personal	115	7.8%
Finances	105	7.2%
Home	79	5.4%
COVID	65	4.4%
Family	59	4.0%
Medical	48	3.3%
Academics	35	2.4%
Job	20	1.4%
Major/Program of Study	19	1.3%
Extenuating	4	0.3%



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Research Findings: Indicators of Success

Theme	Sample Contributing Factors
Sense of Belonging	<ul style="list-style-type: none"> • Meaningful connections • Engagement with community and academic program • Sense of personal and academic trajectory
Basic Needs	<ul style="list-style-type: none"> • Food, housing, transportation, and financial stability • Family support
Well-Being	<ul style="list-style-type: none"> • Regulated academic and social involvement • Holistic well-being • Strategies to manage stress and anxiety • Motivation, initiative, and resiliency
Academics	<ul style="list-style-type: none"> • Classroom and academic engagement • Timely academic progression • Learning strategies and knowledge/use of resources

From 37 focus groups with 132 participants in 2021-2022 academic year and review of major research reports:
https://www.jmu.edu/pair/sacs/coc/qep/qep_research.shtml



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Recommendation

Build an early **student success system** that gathers data on and generates insights into “non cognitive factors”; that is the behavioral, motivational, emotional, and social domains of student success. In our case this is student well-being, basic needs, sense of belonging, and academics.

But how?

What data exists and how do we get it?

What data do we need to generate?



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Step 3: Design Phase

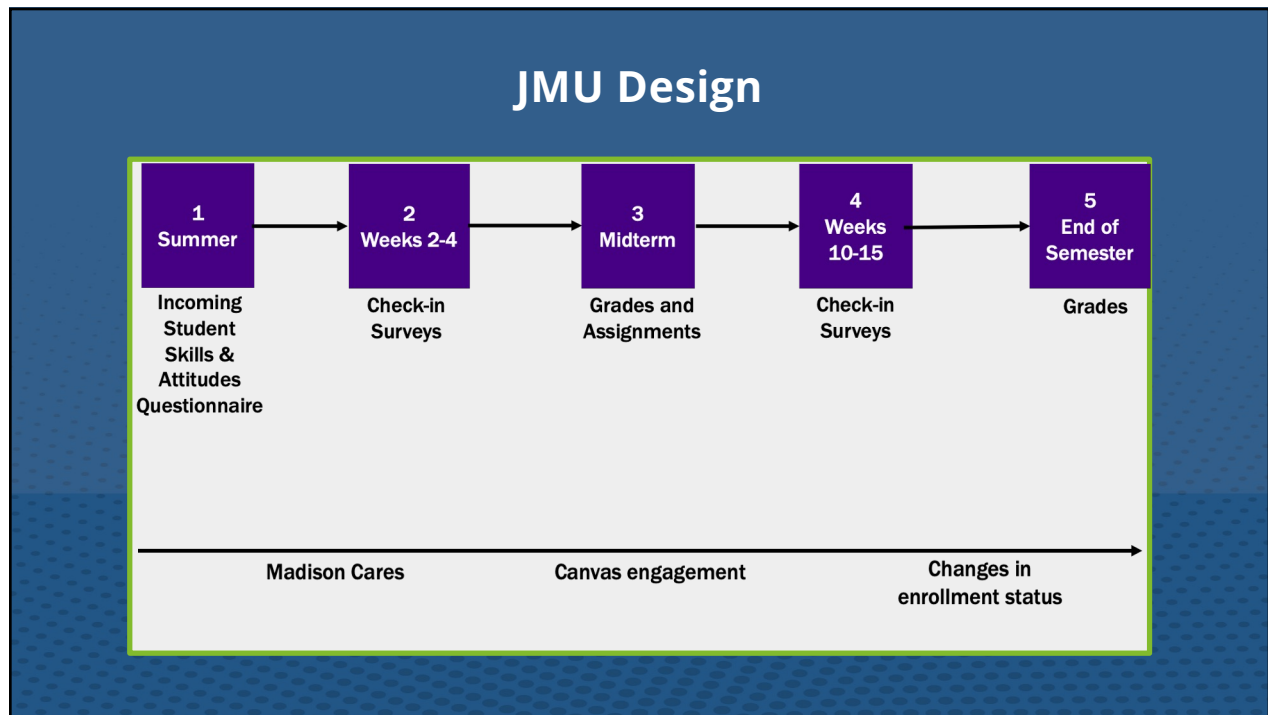


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Incoming Student Skills & Attitudes Questionnaire (ISSAQ)

- Developed by Ross Markle at DIA Higher Ed Collaborators
- Assesses and provides feedback on key non-cognitive skills across behavioral, motivational, emotional, and social domains
- A tool toward student success & retention through student empowerment & data analytics

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SSAQ Factor & Item Overview

Factor*	Description	Example Item
Organization	The behaviors and strategies that a student uses to organize their work and time. Related to key aspects of academic success, such as student study skills and conscientiousness.	<ul style="list-style-type: none"> I set aside specific times to study. I use a calendar to keep track of things.
Quality Focus	A student's emphasis on high-quality work and avoidance of errors. Quality Focus relates to concepts such as precision, attention to detail, and even "perfectionism."	<ul style="list-style-type: none"> I double check my work. I work until something is done right.
Engagement	The increased expectations of college-level courses with regards to attendance, assignment completion, and involvement both within and outside the classroom.	<ul style="list-style-type: none"> I show up to class on time. I pay attention in class.
Goal Commitment	Borrowing from several motivational theories, Goal Commitment focuses on a student's value and prioritization of a college degree goal.	<ul style="list-style-type: none"> Getting a college degree is important to me. I'm proud of myself when I do well in school.
Persistence	One of the predominant features of "grit," Persistence refers to the maintenance of effort in the face of challenges.	<ul style="list-style-type: none"> I believe that failure is not an option. I work hard even when challenges get in my way.
Effort Focus	One of the core beliefs of a "growth mindset," Effort Focus refers to the perception that success is rooted in effort, rather than innate ability.	<ul style="list-style-type: none"> Working hard is more important than being smart. I believe that "practice makes perfect."



SSAQ Factor & Item Overview

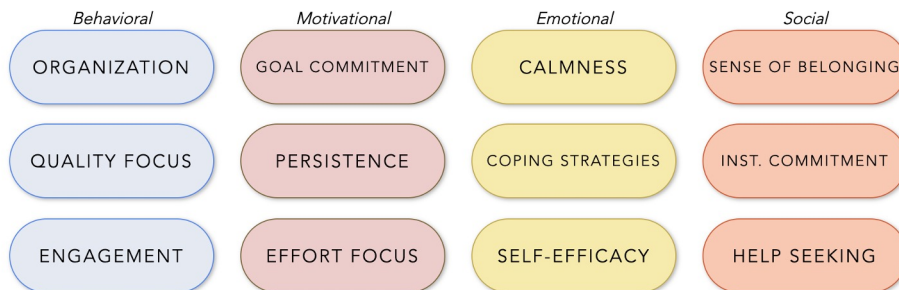
Calmness	A general resistance to stress, whereby students who score low on this factor are more likely to become stressed and those who score high are less likely to do so.	<ul style="list-style-type: none"> I often worry about things. I get stressed out easily.
Coping Strategies	The extent to which students use adaptive and/or problematic coping strategies when dealing with stress.	<ul style="list-style-type: none"> I take action to try and make the situation better. I give up trying to deal with it.
Self-Efficacy	A critical component of many motivational theories, Self-Efficacy refers to an individual's belief that they will be successful in college.	<ul style="list-style-type: none"> I tend to learn quickly. I know I will do well in college.
Sense of Belonging	A feeling of connection to the people within a college or university.	<ul style="list-style-type: none"> Faculty and staff remember my name. A lot of my close friends come from this school.
Institutional Commitment	A student's attitude toward the college or university as a whole (i.e., positive or negative perception), as opposed to the individuals within that institution.	<ul style="list-style-type: none"> This is one of the best schools in the nation. I often tell people that I'm a student at this school.
Help Seeking	A student's attitudes toward and tendency to ask for assistance when problems arise.	<ul style="list-style-type: none"> I am embarrassed when I have to ask for help. When I need help, I don't care that others know.



ISSAQ Use for Student Empowerment

ISSAQ STUDENT RESOURCES

Below are the 12 factors that comprise the ISSAQ model, which represent the behavioral, motivational, emotional, and social domains of student success. Click on the button for any factor to find out more about the supporting research, relevance for student success, and ways to support students in each area.



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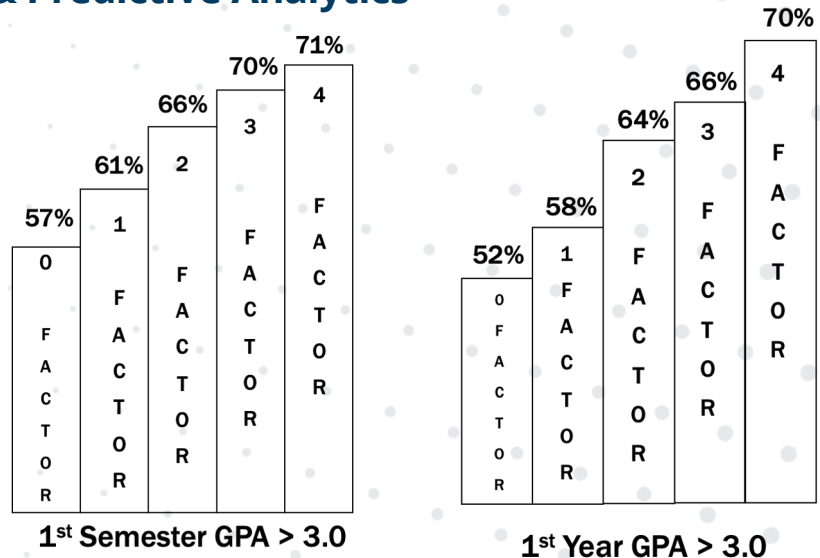
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ISSAQ Validation & Predictive Analytics

Student Success Model

4 Key Factors

- Organization
- Engagement
- Goal Commitment
- Sense of Belonging



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Step 4: Implementation Phase



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Implementation process

1. **Process > product.** Implementation will be slow and messy, but trust your process.
1. **Intentional from the beginning.** Whatever framework or process you use, develop intentionally from the beginning.
1. **Human-centered.** Implementation requires human adaptation (employees, students) - we are social, relational, and emotional.
1. **Iterative & adaptive.** Need to actively learn, experiment, and integrate lessons into new pilots. Start small, scale up.
1. **Persuade & advocate.** Know audiences and use data-informed stories.

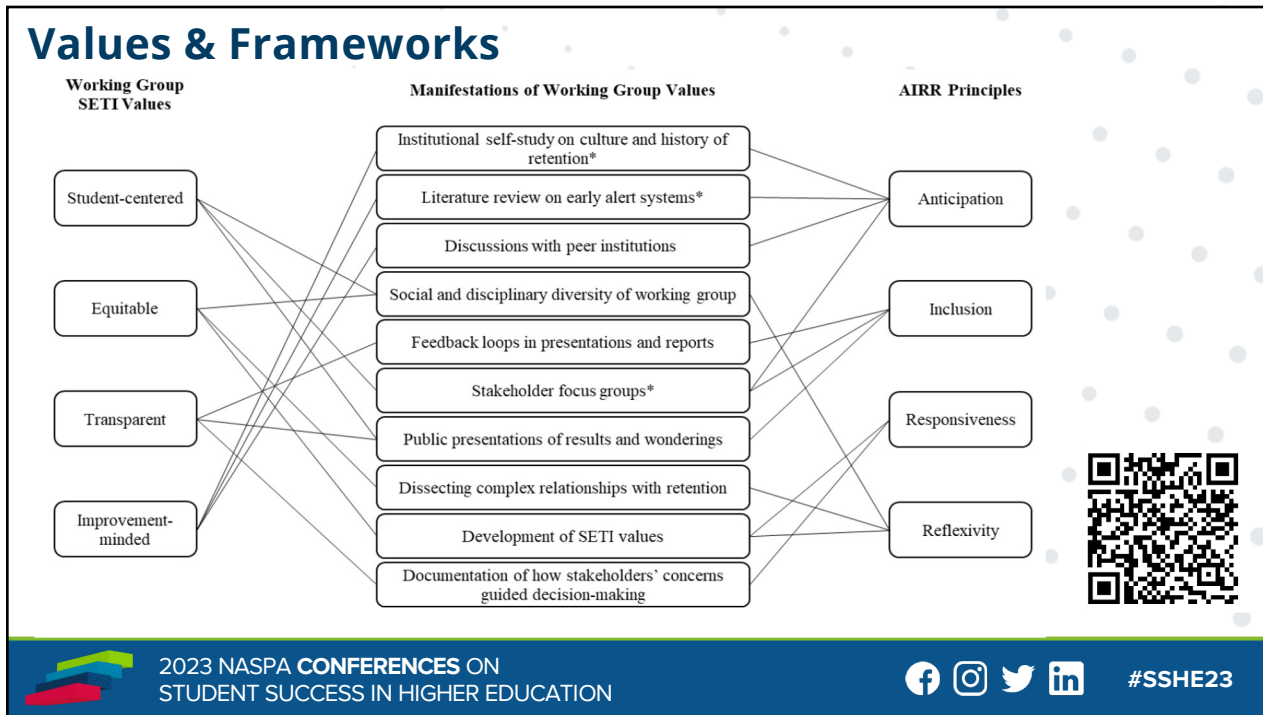


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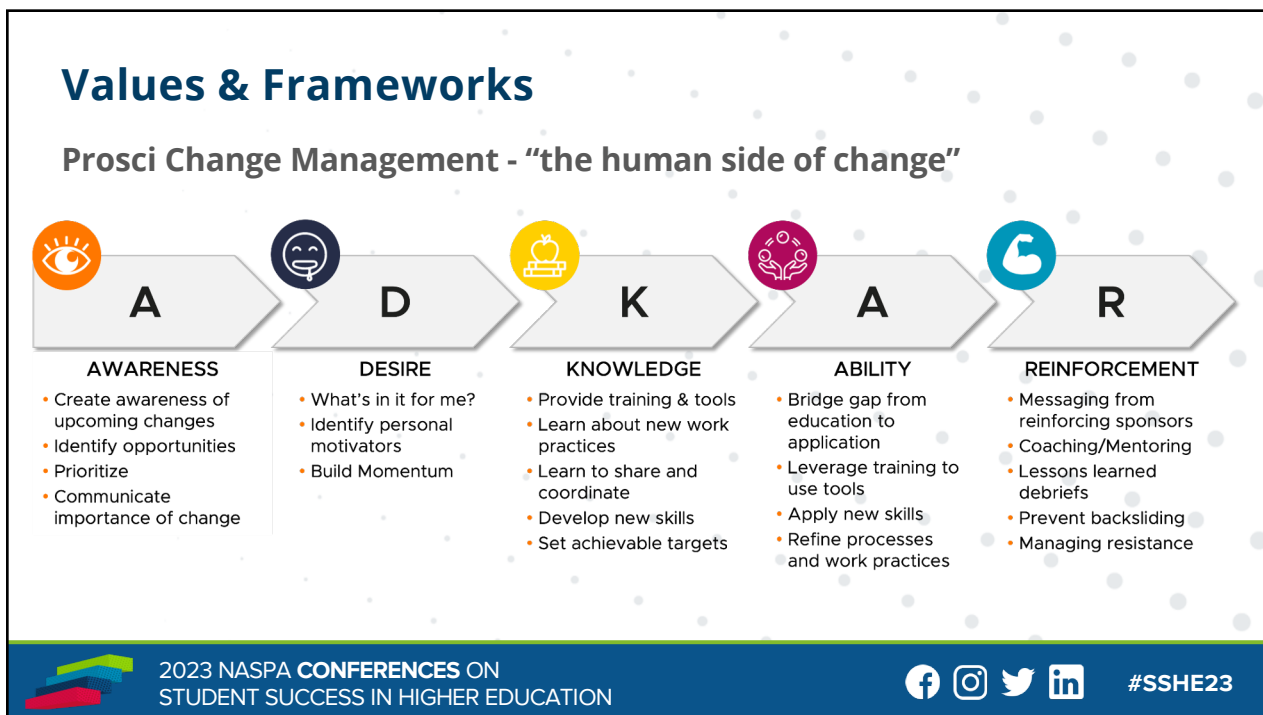


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Non-cognitive integration across campus - Completed

1. **Advising & Technology forums:** Spring 2022 and Spring 2023
1. **SSAQ Advisor Trainings:** Summer 2022, Fall 2022, Summer 2023, Fall 2023
1. **SSAQ report distribution to students and advisors:** 2022-2023
1. **SSAQ Peer mentoring pilot:** Fall 2022, Fall 2023
1. **Advising Resource Collaboration Presentation:** Spring 2023
 - a. Bridge to Madison
 - b. Adult Degree Program



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Non-cognitive integration across campus - Upcoming

6. **SSAQ integration into Constituent Relationship Management (CRM)**
7. **SSAQ Programs at Scale**
 - a. College interest
 - b. Chemistry gateway course
 - c. International students & Sense of Belonging intervention
8. **First-year & Student Success courses**
9. **Pre/post assessment tool**

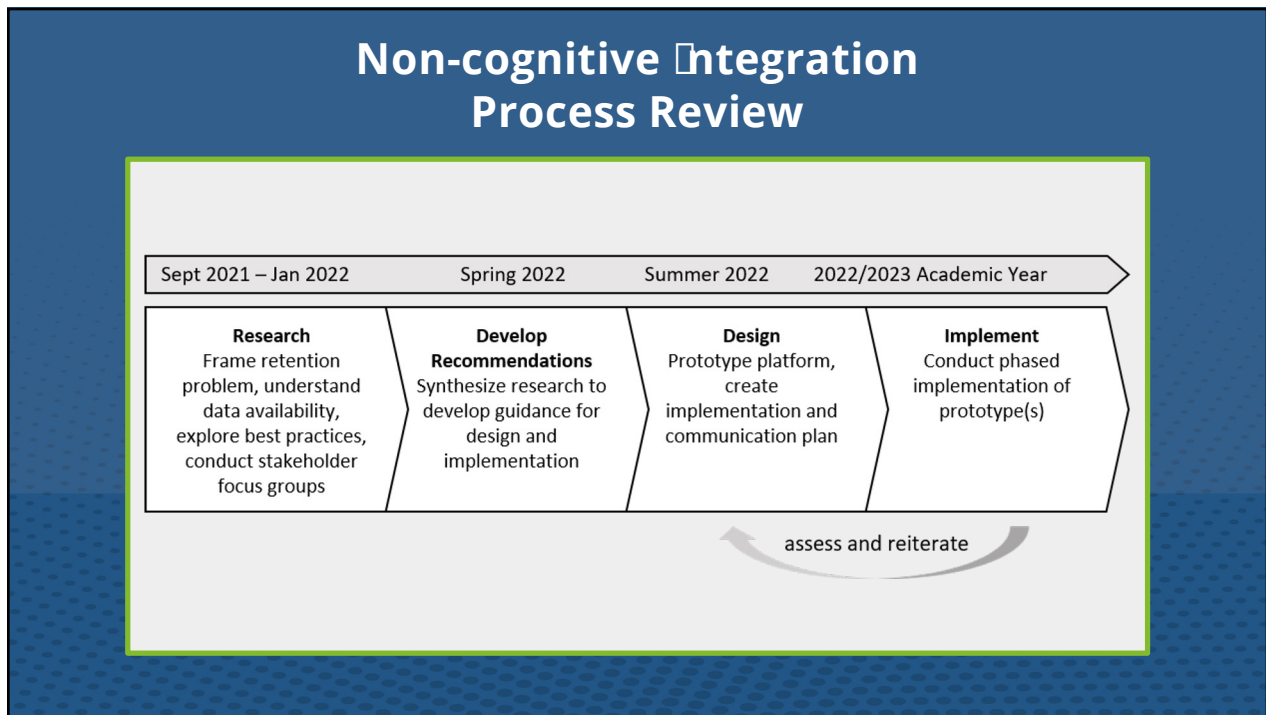


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Q & A

... What are your takeaways from today?
... What additional questions do you have?
... Do you have any suggestions/feedback for us to help our campus efforts?

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Thank You!



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