

# Assessing Personal Skills in the School

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Educational Testing Service



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Sahodaya School Complex, Chennai, 27 December 2011

# ETS & Center for Academic and Workplace Readiness and Success

- Background variables: PISA, NAEP
- GRE: PPI
- Elementary schools research collaborative
- Experimental studies of time management
- SEL assessment (Montgomery High School)
- Drop-out assessment and prevention
- Faking (detection and prevention; OUP book)
- Constructs: Cognitive fatigue, bullying, creativity, health attitudes, intercultural sensitivity, team problem solving, character strengths
- Workforce and college readiness conference

# What Are Personal (Noncognitive) Skills?

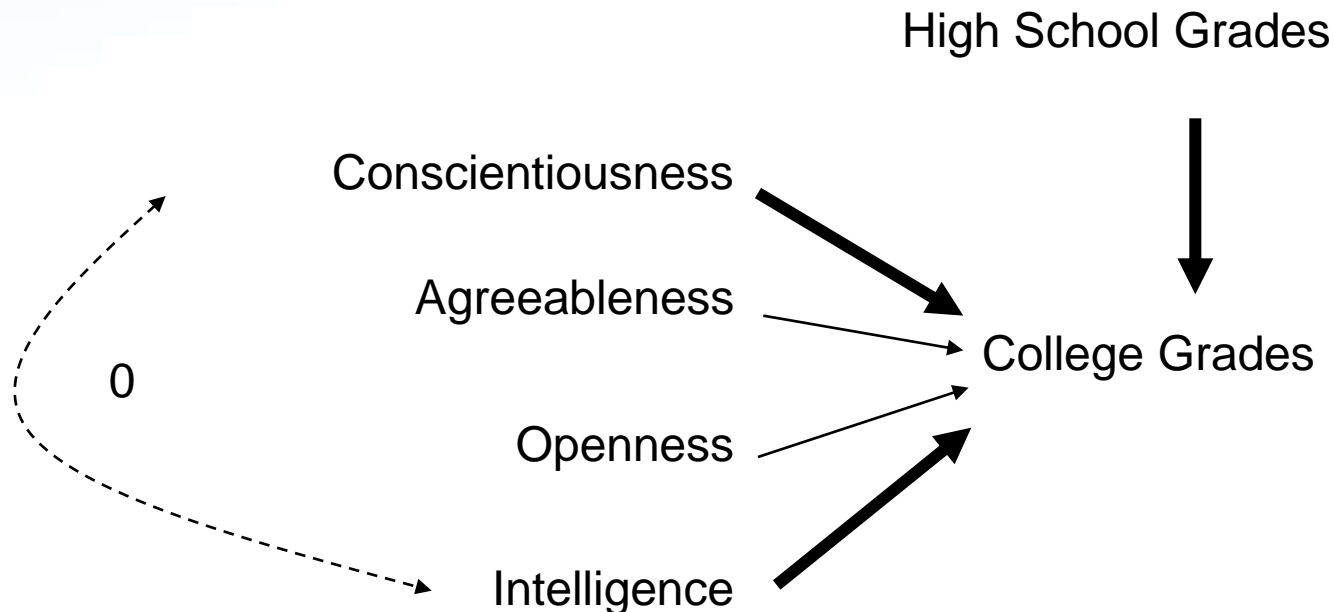
- Professionalism
- Teamwork
- Collaboration
- Oral communication
- Agreeableness
- Ethics
- Emotional intelligence
- Diversity
- Values
- Time Management
- Anxiety
- Emotional stability
- Enthusiasm
- Leadership
- Character
- Open-mindedness
- Persistence
- Collegiality
- Motivation
- Work ethic
- Planning
- Organization
- Self-efficacy
- Social intelligence
- Leading
- Global awareness
- Critical thinking
- Interacting
- Presenting
- Coping
- Enterprising
- Cultural sensitivity
- Extroversion
- Self-esteem
- Creativity
- Conscientiousness
- Openness

# Personal Skills: Importance

- Values, attitudes, beliefs, personality, motivation (includes, self-knowledge)
- Important to academic success (Porporat, 2008)
- Important to workplace success (Schmidt & Hunter, 1998)
- Valued by the workforce (Conference Board, P21)
- Valued across the globe (PISA 2012)

# Personality Predicts Grades

- **Poropat (2009) Meta-analysis of “Big 5” personality factors and educational outcomes (elementary-college)**



# Personal Skills Predict Labor Market Outcomes

- Swedish enlistment data: Measured at age 18 and predict labor market outcomes for 30+ year olds
- Noncognitive ability (psychologist interview; not survey)
  - Willingness to assume responsibility, independence, outgoing character, persistence, emotional stability, initiative, social skills
- Poor labor market outcomes (chronic unemployment, low earnings)
  - Predicted by lack of noncognitive rather than cognitive ability (Cognitive ability stronger predictor of wages for skilled workers and of earnings above median)
  - Explanations: Noncognitive ability determines productivity irrespective of occupation or ability level. Cognitive ability valuable only for those in qualified occupations

Lindqvist, Erik, & Vestman, Roine (2011). The Labor Market Returns to Cognitive and Noncognitive Ability: Evidence from the Swedish Enlistment. *American Economic Journal: Applied Economics*, 3 (1), 101-128.

# Personal Skills & Workforce

4-yr  
grads

2-yr  
grads

HS  
grads

Percentage

100

80

60

40

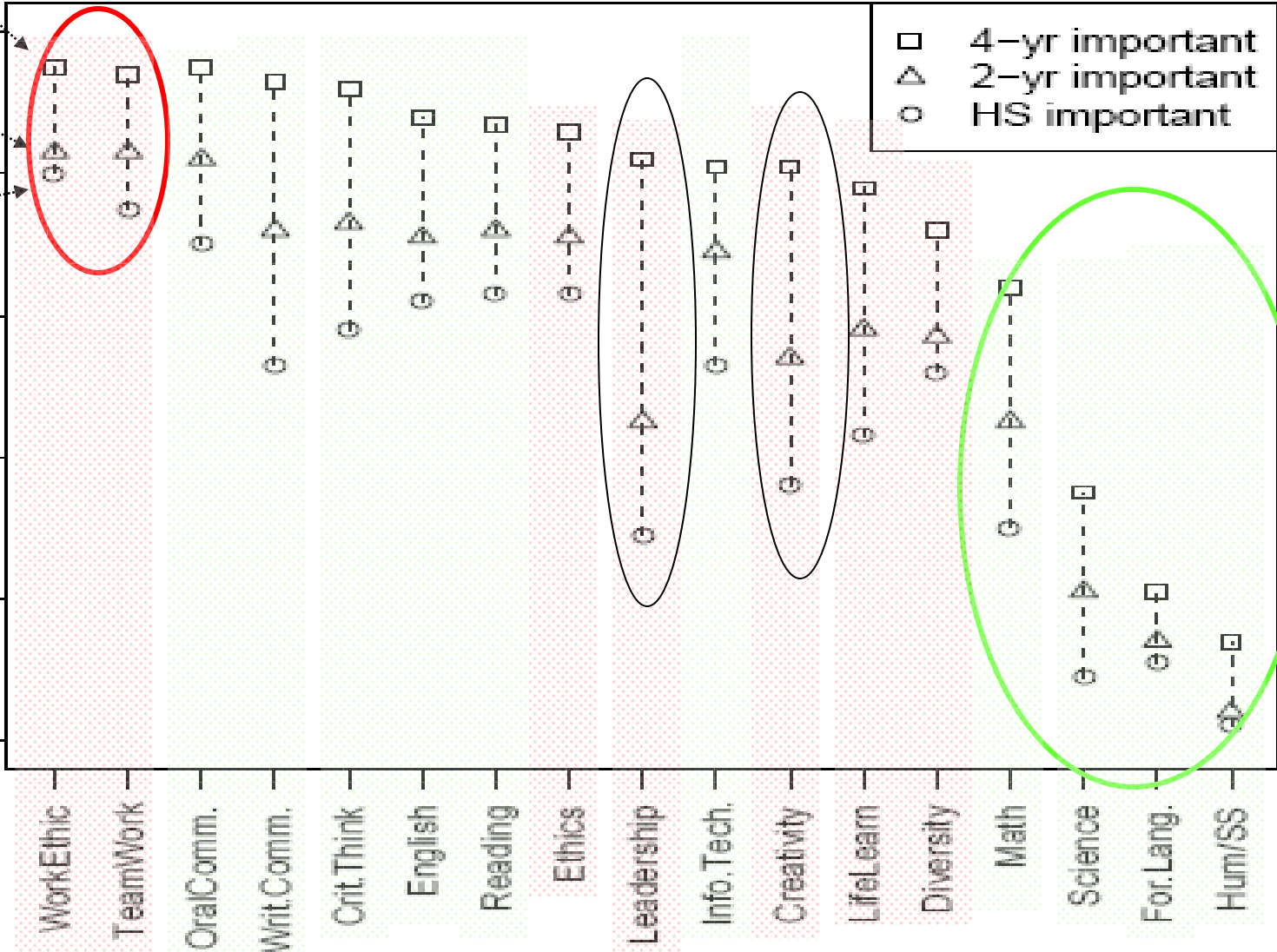
20

0

□ 4-yr important

△ 2-yr important

○ HS important



Conference Board  
Partnership for 21<sup>st</sup> Century  
Skills, Society for Human  
Resource Management,  
Corporate Voices for  
Working Families (2006).  
Are they really ready to  
work?

# Features

- Noncognitive constructs are linked to achievement (Kyllonen & Roberts, 2008)
- Noncognitive constructs appear more modifiable than cognitive constructs (Kyllonen, Roberts, & Stankov, 2008)
- Predict other valued outcomes (e.g., retention) better than cognitive indicators
- Noncognitive assessments show less gap (Foldes et al., 2008; Sackett et al., 2008)



# Personal Skills Impact Academic Outcomes

	GPA	Class Absences	Discipline	Infirmity Visits
SSAT	.27	-.04	-.05	-.04
Conscientiousness	.21	-.31	-.23	-.22
Teacher ratings (noncognitive)	.38	-.35	-.42	-.26

MacCann, Duckworth, & Roberts, 2008

# Personal Skills Assessments

## Learning Skills

- Openness
- Learning & Ability
- Learning Strategies
- Engagement
- Test-Taking Strategies

## Conscientiousness

- Conscientiousness
- Time Management
- Self-Discipline
- Sleep Type
- Persistence
- Focus
- Achievement Striving

## Psychological Well-being

- Resilience
- Test Anxiety
- Life Satisfaction
- Bullying
- Life at School
- Math Anxiety
- Coping

## Social and People Skills

- Agreeableness
- Extroversion
- Health and Wellness
- Emotional Management

## Motivation

- Interests
- Career Interests
- Self-Efficacy
- Motivational Strategies

## Process Skills

- Perceptual Speed
- Working Memory

## Knowledge Skills

- Crystallized ability
- Fluid Ability
- Critical Thinking
- Fluency
- Quantitative Ability

# Primary School Assessments

**WHO AM I? - Microsoft Internet Explorer**  
 Address: <http://www.learnersnapshot.org/ETS.FM1/snapshot.html>

**THE TEST ANXIETY METER** 1 2 3 4 5 6 7 8 9 10

1 Before a test, I feel worried or upset.  
 Strongly Disagree  Disagree  Neutral  Agree  
 Strongly Agree

2 Before a test, I am very relaxed.  
 Strongly Disagree  Disagree  Neutral  Agree  
 Strongly Agree

3 Before a test, the harder I study, the more nervous I get.  
 Strongly Disagree  Disagree  Neutral  Agree  
 Strongly Agree

HELP NEXT

**ETS - Microsoft Internet Explorer provided by Caspader Sciences Corporation**  
 Address: <http://naepba.ets.org/program/hs/col/index.html>

1 OF 1

I \_\_\_\_\_ like to get up early.

never rarely sometimes often usually always

?



# Sample Survey – Sleep Type



It's never easy for me to get up in the morning.



# Sample Survey – Sleep Type

1 OF 7




It's always easy for me to get up in the morning.



# Content in Sample Feedback

- Student Suggestions: Do as much as you can the night before -- such as selecting your clothes for the next day and packing your backpack with things you need for school
- Parent (or Teacher) Suggestions: When you need to have important discussions with your early bird, have them in the morning
- Facts: Famous night people include Thomas Edison. The word "circadian" comes from the Latin: "circa" (about) and "dies" (one day)

	1 Very unfamiliar	2	3 Somewhat familiar	4	5 Very familiar
Shunt-word	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exponential Function	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proper Number	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rational Number	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subjunctive Scaling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	1 Very unfamiliar	2	3 Somewhat familiar	4	5 Very familiar
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

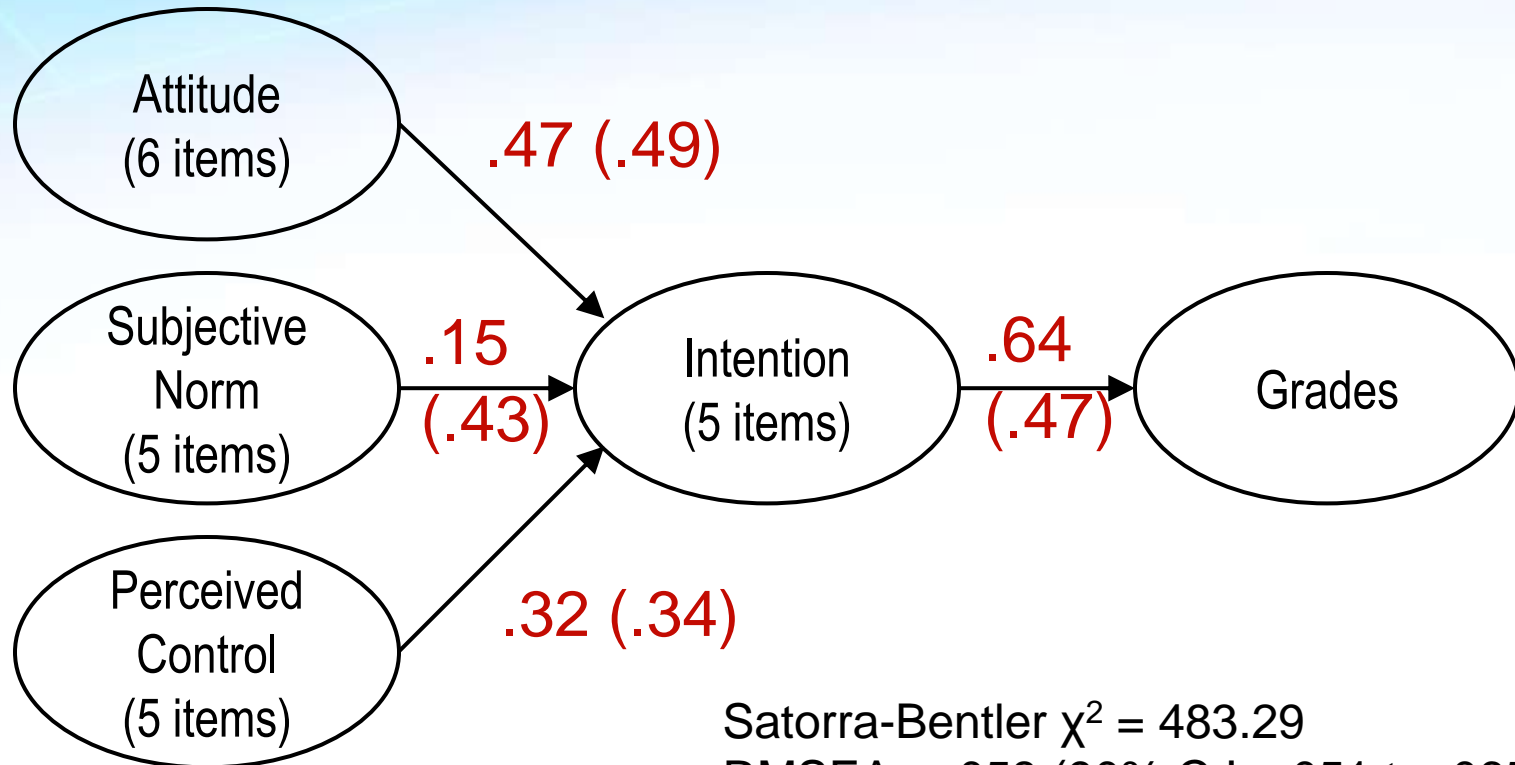


# Select Research Findings

- Time management in middle school: Two correlated factors, predict grades
- Morningness-eveningness and academic achievement: Eveningness correlates with cognitive ability, but Morningness is correlated with Conscientiousness and GPA
- Stress and coping in middle school: Problem-focused coping strategies superior to emotion-focused and avoidant
- Other domains: Bullying, health attitude, test anxiety, emotion regulation, core self-evaluations, large-scale group score assessments

# TpB Predicts Grades

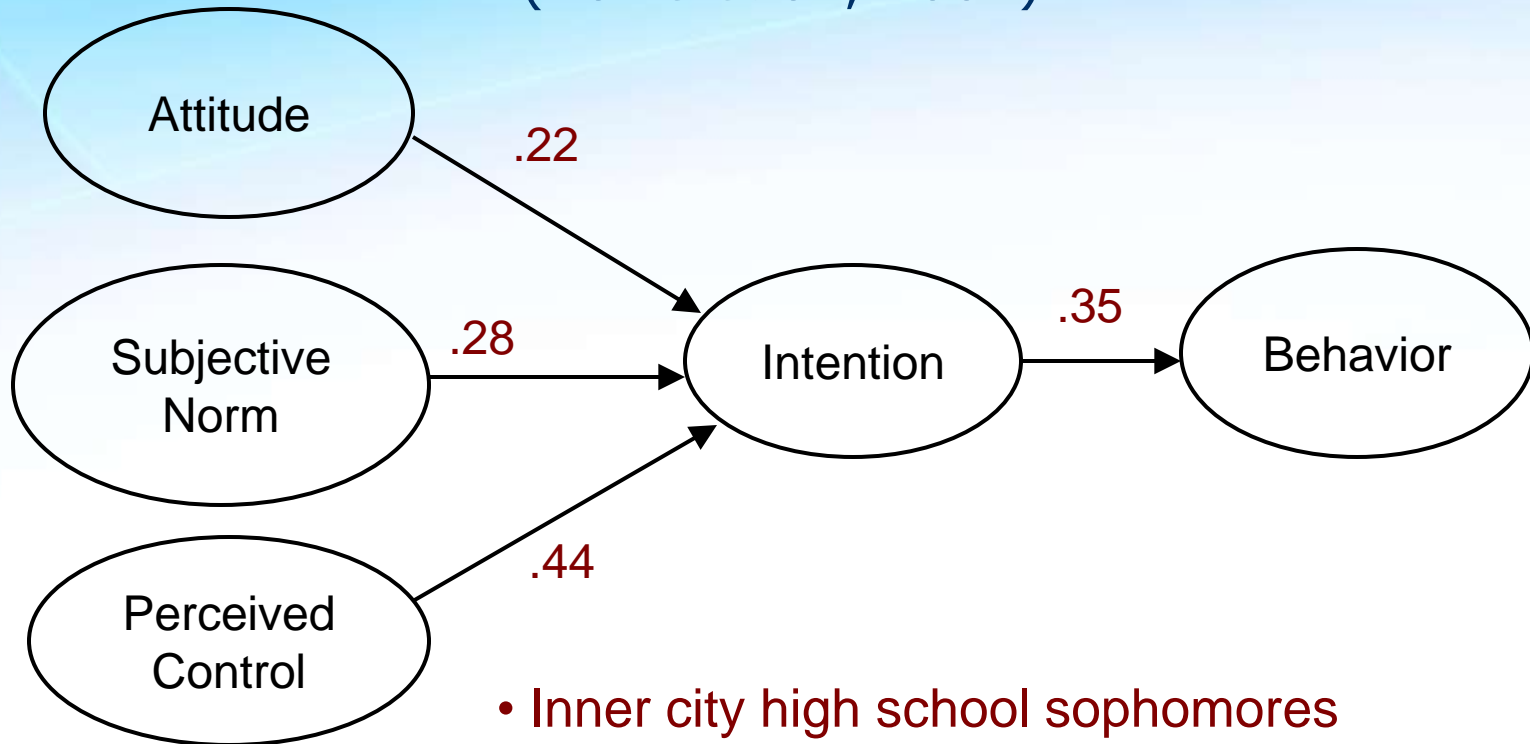
(N = 382 8th Graders)



Satorra-Bentler  $\chi^2 = 483.29$   
RMSEA = .058 (90% C.I.: .051 to .065)  
CFI = .98  
SRMR = .06

# Drop-out & Attitude Change

(Davis et al., 2002)



- Inner city high school sophomores
- Measured intention to complete current year
- Used this to predict high school graduation

# High School Assessments

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## Time Management: Self-Test: Directions

### How do you plan and get things done?

In this self-test, you'll find a number of statements. Read each one and decide how well it describes the way you think or feel.

**Here is an example:**

I love participating in class discussion.    Never   Rarely   Sometimes   Often   Usually   Always

**You might respond:**

I love participating in class discussion.    Never   Rarely   Sometimes   Often   Usually   Always

You should reply to all statements. Give your first impression of whether each statement describes the way you think and feel about it. Don't spend too long on deciding what your answer should be. Answer all statements even if you're not entirely sure of your answer. There are no right or wrong answers.

This self-test should take you about 5 to 10 minutes to complete.

[GET STARTED!](#)

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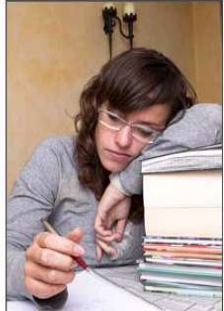
HOME ABOUT HELP

Email Action Plan | Print Action Plan | Go Back to Results

## Time Management: Action Plan

### How can you better plan and get things done?

Areas to Improve: [Sense of Purpose](#) | [Meeting Deadlines](#) | [Coping](#) | [Planning](#) | [Mechanics](#)

AREA TO IMPROVE	WHAT YOU CAN DO	USEFUL TOOLS
<p><b>Sense of Purpose</b></p> <p>You can lose your drive when you feel what you have to do is too hard.</p> 	<ul style="list-style-type: none"> <li>When faced with a new or difficult assignment, you might feel overwhelmed and just want to avoid it altogether. To get started when the challenge feels too big, think about how you can break it down into smaller parts.</li> <li>List out all the tasks that make up the bigger assignment and work on one at a time. Each part of the assignment you complete brings you that much closer to your goal.</li> <li>Ask someone you respect and trust—a fellow student or advisor—to talk about it with you and help you think about what you need to do. Just saying out loud what you're concerned about can help you look at the tasks realistically and feel more comfortable about getting them done.</li> <li>Work on tougher assignment when you're feeling your best. When do you have the most energy and focus? Early morning? Late at night? Use the time that's naturally best for you.</li> </ul>	<p>Assignment Planner ▶</p>

# Ready Edge Insight

- Web-based tools and services focused on noncognitive qualities
- Useful tools: Test taking strategies, time management, career planning, teamwork, test anxiety, coping with stress, health attitudes, (financial literacy), resilience, work ethic, numeracy
- Help students plan, monitor, achieve, graduate
- Reduce attrition

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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### You might respond:

I love participating in class discussion.

Never	Rarely	Sometimes	Often	Usually	Always
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

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GET STARTED!

# Time Management

## 1. Setting Goals

I am driven to achieve my goals

I focus on what really matters

## 2. Meeting Deadlines

I leave things to the last minute\*

I set realistic time estimates on each task

## 3. Organizing Time and Tasks

I write a weekly to-do list

Without my organizer I am lost

## 4. Staying Focused on the Present

I can't cope with change

I live in the past

## 5. Planning Ahead

I like to “live on the edge”

I don't plan things I just do them

## 6. Having a Workspace

I organize my desk so I know exactly where things are

I have ordered files

# Text-Based SJT: Stem

You are part of a study group that has been assigned a large presentation for class. As you are all dividing up the workload, it becomes clear that both you and another member of the group are interested in researching the same aspect of the topic. Your colleague already has a great deal of experience in this area, but you have been extremely excited about working on this part of the project for several months.

Which of the following is the best approach to dealing with this situation?









# Text-Based SJT: Response

- (A) Flip a coin to determine who gets to work on that particular aspect of the project.
- (B) Insist that, for the good of the group, you should work on that aspect of the project because your interest in the area means you will do a particularly good job.
- (C) Compromise your preferences for the good of the group and allow the other person to work on that aspect of the project.
- (D) Choose a different group member to work on that aspect of the project.

**Time Management: Your Skill Summary**

How do you plan and get things done?

[Email](#)[Print](#)[See Your Action Plan](#)

Skill	Parts of This Skill	Your Strength on Each Skill
<b>Setting Goals</b> Setting and meeting your goals	<ul style="list-style-type: none"> <li>Setting specific goals</li> <li>Wanting to achieve your goals</li> <li>Seeing the value of meeting your goals for your future</li> <li>Working through tasks even when they are not easy</li> </ul>	 Medium
<b>Meeting Deadlines</b> Estimating time and meeting deadlines	<ul style="list-style-type: none"> <li>Figuring out how long it takes to complete a task</li> <li>Making productive use of the time you have</li> <li>Completing your work</li> <li>Meeting the deadline</li> </ul>	 Low
<b>Staying Focused on the Present</b> Focusing on what you need to do now	<ul style="list-style-type: none"> <li>Staying focused on what you need to do today</li> <li>Using your past experiences and future goals to help you make decisions today</li> </ul>	 Medium
<b>Planning Ahead</b> Planning what you need to do	<ul style="list-style-type: none"> <li>Thinking ahead about what you need to do</li> <li>Planning out how you will complete tasks in order of importance</li> <li>Having a routine that helps you get things done</li> </ul>	 Medium
<b>Organizing Time &amp; Tasks</b> Using a system to organize your time and tasks	<ul style="list-style-type: none"> <li>Using tools like a planner and calendar to organize what you need to do and remember appointments</li> </ul>	 Medium
<b>Having a Workspace</b> Having a space to work that helps you get things done	<ul style="list-style-type: none"> <li>Having a work area that you feel is organized and free of distractions</li> <li>Keeping your books, notes, and supplies together where you can quickly find them</li> </ul>	 High

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## Time Management: Action Plan

How can you better plan and get things done?

Areas to Improve: **Sense of Purpose** | Meeting Deadlines | Coping | Planning | Mechanics

AREA TO IMPROVE	WHAT YOU CAN DO	USEFUL TOOLS
<p><b>Sense of Purpose</b></p> <p>You can lose your drive when you feel what you have to do is too hard.</p> 	<ul style="list-style-type: none"> <li>• When faced with a new or difficult assignment, you might feel overwhelmed and just want to avoid it altogether. To get started when the challenge feels too big, think about how you can break it down into smaller parts.</li> <li>• List out all the tasks that make up the bigger assignment and work on one at a time. Each part of the assignment you complete brings you that much closer to your goal.</li> <li>• Ask someone you respect and trust—a fellow student or advisor—to talk about it with you and help you think about what you need to do. Just saying out loud what you're concerned about can help you look at the tasks realistically and feel more comfortable about getting them done.</li> <li>• Work on tougher assignment when you're feeling your best. When do you have the most energy and focus? Early morning? Late at night? Use the time that's naturally best for you.</li> </ul>	<p>Assignment Planner &gt;</p>

## Coursework Calculator

Every credit hour you take equals about 1 hour per week of time in class. You can expect that for every hour you spend in class, you will need an average of 2 hours of study time. For subjects that are more difficult for you, you may need more time.

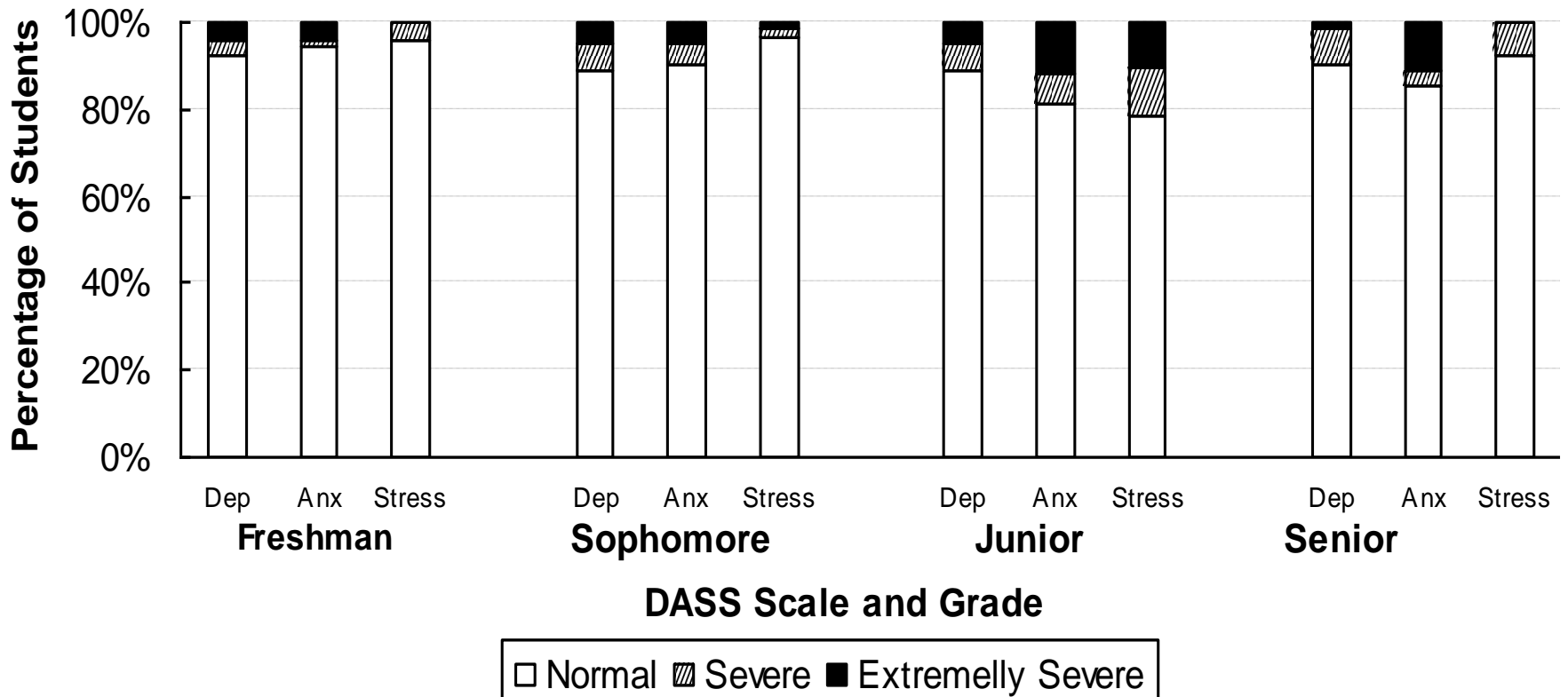
For example, a student who's taking four 3-credit classes in a semester spends about 12 hours a week in class ( $3 \times 4=12$ ), and needs to study about 24 hours a week ( $12 \times 2=24$ ). Total time on coursework for this student is 36 hours per week!

Name of Class	Credits	=	Hours in Class Each Week	$\times 2 =$	Hours of Study Time Each Week	Total Weekly Coursework Hours (Hours in Class + Study Time)
English	3	=	3	$\times 2 =$	6	9
Elementary Algebra	3	=	3	$\times 2 =$	6	9
Psychology	3	=	3	$\times 2 =$	6	9
U.S. History	3	=	3	$\times 2 =$	6	9
<b>TOTALS:</b>	12	=	12	$\times 2 =$	24	<b>36</b>

To find out how much time you need to allow for your coursework, fill in the chart below. Remember, for subjects that are more difficult for you, you may need to allow for extra study time.

Name of Class	Credits	=	Hours in Class Each Week	$\times 2 =$	Hours of Study Time Each Week	Total Weekly Coursework Hours (Hours in Class + Study Time)
		=		$\times 2 =$		
		=		$\times 2 =$		

# Institutional Reporting



# Others' ratings (ETS® PPI)

- Faculty members rate prospective graduate students
  - Supplement to GRE
- Launched last summer
  - Pilot tested with Project 1000, ETS intern program
- Supplement to grades, test scores, and recommendation letters
- Provides additional information about students
- Helps create a more diverse and successful graduate program

# PPI Scales and Items

## Knowledge and Creativity

- Has a broad perspective on the field
- Is among the brightest persons I know
- Produces novel ideas
- Is intensely curious about the field

## Communication Skills

- Speaks in a clear, organized, and logical manner
- Writes with precision and style
- Speaks in a way that is interesting
- Organizes writing well

## Teamwork

- Supports the efforts of others
- Behaves in an open and friendly manner
- Works well in group settings
- Gives criticism/feedback to others in a helpful way

## Resilience

- Accepts feedback without getting defensive
- Works well under stress
- Can overcome challenges and setbacks
- Works extremely hard

## Planning and Organization

- Sets realistic goals
- Organizes work and time effectively
- Meets deadlines
- Makes plans and sticks to them

## Ethics and Integrity

- Is among the most honest persons I know
- Maintains high ethical standards
- Is worthy of trust from others
- Demonstrates sincerity

# Twenty-First Century Skills Assessments

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Task	Question Number
Situational Judgment Section 1	1 of 2

Testing Tools

Back Next

Brad Alcott is a college student who has come to see Professor Carson during office hours.

Use the PLAY button to view their dialogue on Brad's academic progress. Then click "Next" in order to see four potential responses from Brad.



Task	Question Number
Situational Judgment Section 1	1 of 2

Testing Tools

Back Next

Use the PLAY button to view four potential responses from Stephen. Then drag the clips of Stephen's responses in order to rank them from MOST appropriate (1) to LEAST appropriate (4).

1



Play




2



Play



3



Play



4



Play



Use the PLAY button to view a way that Madi could begin the discussion, and rate the quality of her response. After you have indicated your rating for a response, click "Next." On the next page, you will then be asked to give your reason(s) for the rating.



Extremely Bad	Bad	Somewhat Bad	Neither Bad nor Good	Somewhat Good	Good	Extremely Good
---------------	-----	--------------	----------------------	---------------	------	----------------

Task	Question Number
Situational Judgment Section 1	1 of 2

Testing Tools

Back Next

Use each PLAY button to view the four potential responses from Brad. Then indicate which of these responses would be BEST.

**Click on the BEST choice.**

**You can replay any of the videos by clicking on the Play buttons.**

**A**

**B**

**C**

**D**



Task	Question Number
Situational Judgment Section 1	2 of 2

Testing Tools

Back Next

Why did you choose this as the best response? Select all of the following reasons that apply.

- Brad shows a willingness to listen and learn from another.
- Brad is making his priorities and goals clear.
- Brad shows a sense of humor about the situation.
- Brad makes a suggestion on how to improve the grading process.
- Brad shows an interest in improving.

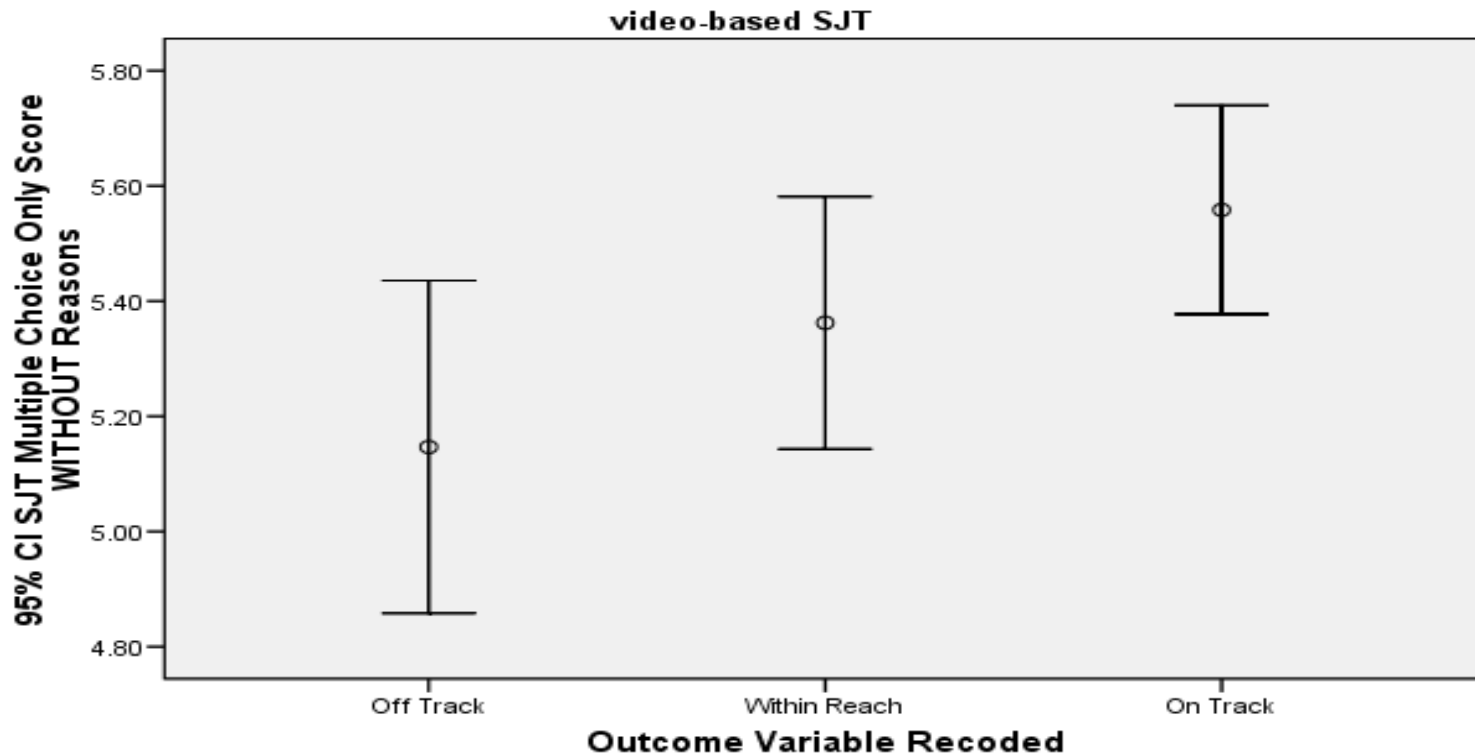
# Self- and Other-Rated SJTs

	$\alpha$	Mean	SD	$r$ Emo Mgmt (S)	$r$ Emo Mgmt (P)
Emo Mgmt (Self)	.71	42	4.8		
Emo Mgmt (Parent)	.69	41	4.9	.19	
Stability	.84	61	9.2	.15	.23
Extraversion	.74	32	4.8	.06	.38
Agreeableness	.75	27	5.2	.44	.14
Conscientiousness	.84	53	9.6	.32	.28
Openness	.71	28	5.0	.10	.29
Grades	-	0	1.0	.29	.24

After controlling for personality, SES, vocabulary, and maths, both SJTs add 8% prediction to grades

# Predicting Teacher Performance

Means with 95%-Confidence Intervals



# Summary

- Personal skills can be assessed
- Can be modified
- Can be integrated into the school context
- Are valued by the workforce
- Do you value personal skills in your school?





# Thank you

[RRoberts@ets.org](mailto:RRoberts@ets.org)