

Compatibility check

Browser Meta Info

This question will not be displayed to the recipient.

Browser:

Version:

Operating System:

Screen Resolution:

Flash Version:

Java Support:

User Agent:

This is a scientific study of human learning and performance that we are conducting in the online laboratory. So, please take the study seriously. We ask that you focus solely on this study for the next 40 minutes.

As we are interested in how people perform without any extra help, **please DO NOT USE A SMARTPHONE or CALCULATOR.**

Please make sure that your browser is maximized to ensure a high-quality presentation and experience.

Please click the **next button** to proceed.

Consent block

Consent for Participation in a Research Study

Study Title: Investigating learning and performance

Principal Investigator: Sian Beilock, Ph.D.

DESCRIPTION: We are researchers at the University of Chicago doing a research study about learning and performance. All data collected in this study are for research purposes only. You will be asked to perform

problem-solving activities and fill out questionnaires so that we can gather information that may relate to individual differences in learning and performance. Participation should take about 40 minutes.

RISKS and BENEFITS: The risks to your participation in this online study are those associated with basic computer tasks, including boredom, fatigue, mild stress, or breach of confidentiality. You are not likely to have any direct benefit from being in this research study.

COMPENSATION: If you complete this study, you will be compensated \$2.00 plus a variable problem-solving performance-based bonus of up to \$5.40.

PLEASE NOTE: This study contains a number of checks to make sure that participants are finishing the tasks honestly and completely. As long as you read the instructions and perform the tasks as instructed, your HIT will be approved. If you fail these checks, your HIT will be rejected.

CONFIDENTIALITY: Your Mechanical Turk Worker ID will be used to distribute payment to you but will not be stored with the research data we collect from you. Please be aware that your MTurk Worker ID can potentially be linked to information about you on your Amazon public profile page, depending on the settings you have for your Amazon profile. We will not be accessing any personally identifying information about you that you may have put on your Amazon public profile page.

Any reports and presentations about the findings from this study will not include your name or any other information that could identify you. We may share the data we collect in this study with other researchers doing future studies – if we share your data, we will not include any information that could identify you.

SUBJECT'S RIGHTS: Your participation is voluntary. You do not have to answer any question you do not want to answer. You may stop participating at any time by closing the browser window or the program to withdraw from the study. For additional questions about this research, you may contact:

- Kyoung whan Choe, Ph.D., Department of Psychology, University of Chicago. Phone: (773) 834-4701; Email: kywch@uchicago.edu, or

For questions about your rights as a research participant, you may contact:

- The Social & Behavioral Sciences Institutional Review Board, University of Chicago. Phone: (773) 834-7835; E-mail: sbs-irb@uchicago.edu

Please write "I agree" below using your mouse to acknowledge that you are at least 18 years old, have read and understand this consent form, and you agree to participate in

this online research study.

×

SIGN HERE

clear

Thank you for your participation!

Please click the **next button** to begin the study.

(MARS) sMARS/sRARS - 1 - sMARS

Instructions: Imagine you are in school. The items in this survey refer to things and experiences that may cause tension, apprehension, or anxiety. For each item, select the response that corresponds to how much the situation described would make you feel anxious. Work quickly, but be sure to think about each item.

Receiving a math textbook.

Not at all (anxious)	A little	A fair amount	Much	Very much (anxious)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Watching a teacher work an algebra problem on the blackboard.

Not at all (anxious)	A little	A fair amount	Much	Very much (anxious)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Signing up for a math course.

Not at all (anxious)	A little	A fair amount	Much	Very much (anxious)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Listening to another student explain a math formula.

Not at all (anxious)	A little	A fair amount	Much	Very much (anxious)
----------------------	----------	---------------	------	---------------------



Walking to math class.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Studying for a math test.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



The word "math" contains seven letters. Select 'very much' for yes, 'not at all' for no.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Taking the math section of a standardized test, like an achievement test.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Reading a cash register receipt after you buy something.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Taking an examination (quiz) in a math course.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Taking an examination (final) in a math course.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Being given a set of addition problems to solve on paper.

Not at all (anxious)

A little

A fair amount

Much

Very much (anxious)



Being given a set of subtraction problems to solve on paper.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Being given a set of multiplication problems to solve on paper.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Being given a set of division problems to solve on paper.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Picking up your math textbook to begin working on a homework assignment.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Being given a homework assignment of many difficult math problems, which is due the next time the class meets.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Thinking about an upcoming math test one week before.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Thinking about an upcoming math test one day before.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Thinking about an upcoming math test one hour before.

Not at all (anxious)

A little

A fair amount

Much

Very much (anxious)



If you are paying attention, please respond "much".

Not at all (anxious)

A little

A fair amount

Much

Very much (anxious)



Realizing that you have to take a certain number of math classes to meet the requirements for graduation.

Not at all (anxious)

A little

A fair amount

Much

Very much (anxious)



Picking up a math textbook to begin a difficult reading assignment.

Not at all (anxious)

A little

A fair amount

Much

Very much (anxious)



Receiving your final math grade on your report card.

Not at all (anxious)

A little

A fair amount

Much

Very much (anxious)



Opening a math or statistics book and seeing a page full of problems.

Not at all (anxious)

A little

A fair amount

Much

Very much (anxious)



Getting ready to study for a math test.

Not at all (anxious)

A little

A fair amount

Much

Very much (anxious)



Being given a "pop" quiz in a math class.

Not at all (anxious)

A little

A fair amount

Much

Very much (anxious)



Having to use the tables in the back of a math book.

Not at all (anxious)

A little

A fair amount

Much

Very much (anxious)



Listening to a lecture in a math class.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Starting a new chapter in a math book.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



A short break

You may take a short break. Please continue if you are ready.

(RARS) sMARS/sRARS - 2 - sRARS

Instructions: Imagine you are in school. The items in this survey refer to things and experiences that may cause tension, apprehension, or anxiety. For each item, select the response that corresponds to how much the situation described would make you feel anxious. Work quickly, but be sure to think about each item.

Receiving an English textbook.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Watching a teacher diagram a sentence on the blackboard.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Signing up for an English course.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



If you are paying attention, please respond "a little".

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Listening to another student explain the purpose of a work of literature.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Walking to English class.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Studying for an English test.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Taking the verbal section of a standardized test, like an achievement test.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Reading an instruction manual.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Taking an examination (quiz) in an English course.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Taking an examination (final) in an English course.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Being given a passage to edit.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Being given a play to analyze.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Being given a poem to interpret.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Being given a sentence to diagram.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Picking up your English book to begin reading a story.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Being given a writing assignment analyzing a book, which is due the next time the class meets.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Thinking about an upcoming English test one week before.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Thinking about an upcoming English test one day before.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

The word "English" contains seven letters. Select 'very much' for yes, 'not at all' for no.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Thinking about an upcoming English test one hour before.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Realizing that you have to take a certain number of English classes to meet the requirements for graduation.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Picking up an English book to begin a difficult reading assignment.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Receiving your final English grade on your report card.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Opening an English book and seeing a long story.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Getting ready to study for an English test.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐

Being given a "pop" quiz in an English class.

Not at all (anxious)

☐

A little

☐

A fair amount

☐

Much

☐

Very much (anxious)

☐



Having to search the bibliography in the back of a textbook.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Listening to a lecture in an English class.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



Starting a new chapter in an English book.

Not at all (anxious)



A little



A fair amount



Much



Very much (anxious)



(RMOQ) Math/Reading Motivation & Overlap - 2 - Reading Motivation Questionnaire

Instructions: Read each statement and then rate how much you agree or disagree. There are no right or wrong answers. Work quickly, but be sure to think about each item.

I consider English to be one of my best subjects.

Strongly disagree



Disagree



Somewhat disagree



Neither agree nor disagree



Somewhat agree



Agree



Strongly agree



I don't feel comfortable when it comes to English classes.

Strongly disagree



Disagree



Somewhat disagree



Neither agree nor disagree



Somewhat agree



Agree



Strongly agree



I do not find English interesting.

Strongly disagree



Disagree



Somewhat disagree



Neither agree nor disagree



Somewhat agree



Agree



Strongly agree



I enjoy learning about English.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

It is useful to learn about English.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I think English will be important to my future.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I consider myself to be an "English person."

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

It is important for me to have a good understanding of reading and writing concepts.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I happen to know a lot about English.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I think learning about English is fun.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I think I'd be successful in a career that requires English (i.e., a lot of reading and writing).

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(MMOQ) Math/Reading Motivation & Overlap - 1 - Math Motivation Questionnaire

Instructions: Read each statement and then rate how much you agree or disagree. There are no right or wrong answers. Work quickly, but be sure to think about each item.

I consider math to be one of my best subjects.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I don't feel comfortable when it comes to math classes.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I do not find math interesting.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I enjoy learning about math.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

It is useful to learn about math.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



I think math will be important to my future.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



I consider myself to be a "math person."

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



It is important for me to have a good understanding of math concepts.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



I happen to know a lot about math.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



I think learning about math is fun.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



I think I'd be successful in a career that requires math.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree




Strongly agree

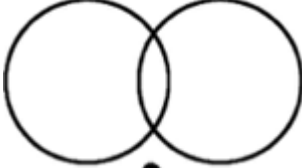


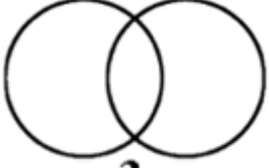
(SMRO) Math/Reading Motivation & Overlap - 3 - Self-Math/Reading Overlap

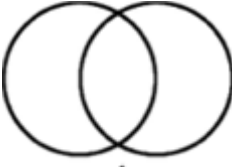
One circle represents **"YOU"** and the other circle represents **MATH**.

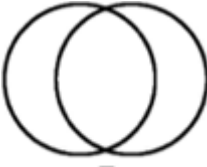
Which item best represents your relationship with **MATH**?

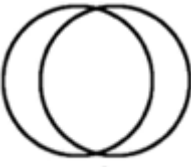
☐  **1**

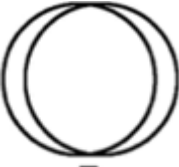
☐  **2**

☐  **3**

☐  **4**

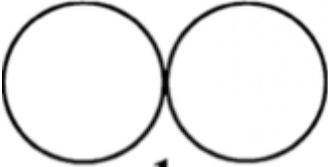
☐  **5**

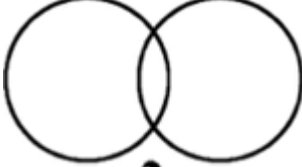
☐  **6**

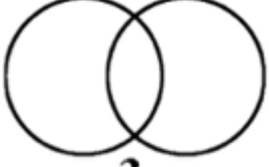
☐  **7**

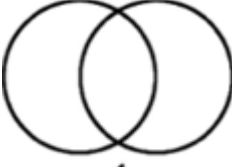
One circle represents “**YOU**” and the other circle represents **READING**.

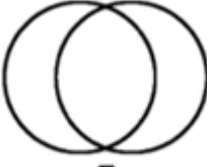
Which item best represents your relationship with **READING**?

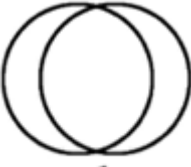
☐  **1**

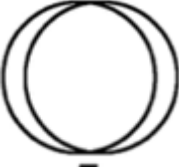
☐  **2**

☐  **3**

☐  **4**

☐  **5**

☐  **6**

☐  **7**

Please indicate on a scale from 1 to 10,

	Not anxious							Very anxious		
	1	2	3	4	5	6	7	8	9	10
How <i>math</i> anxious are you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How <i>reading</i> anxious are you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(STAI) STAI Trait Anxiety

Instructions: A number of statements which people have used to describe themselves are given below. Read each statement and then select the appropriate response to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

I am seated.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I am a comfortable bird.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel pleasant.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel nervous and restless.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel satisfied with myself.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I wish I could be as happy as others seem to be.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel like a failure.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel rested.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I am "calm, cool, and collected".

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel that difficulties are piling up so that I cannot overcome them.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I worry too much over something that really doesn't matter.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I am happy.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I have disturbing thoughts.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I lack self-confidence.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel secure.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I make decisions easily.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel inadequate.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I am content.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

Some unimportant thought runs through my mind and bothers me.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I take disappointments so keenly that I can't put them out of my mind.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I am a steady person.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I get in a state of tension or turmoil as I think over my recent concerns and interests.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

(TEST) Spielberger Test Anxiety Inventory

Instructions: Imagine you are in school. The items in this survey refer to things and experiences that may cause tension, apprehension, or anxiety. For each item, select the response that corresponds to how much the situation described would make you feel anxious. Work quickly, but be sure to think about each item.

If you are paying attention, please respond "moderately so".

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

The word "test" contains seven letters. Select 'very much' for yes, 'not at all' for no.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel confident and relaxed while taking tests.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

While taking examinations I have an uneasy, upset feeling.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

Thinking about my grade in a course interferes with my work on tests.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I freeze up on important exams.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

During exams I find myself thinking about whether I'll ever get through school.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

The harder I work at taking a test, the more confused I get.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

Thoughts of doing poorly interfere with my concentration on tests.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel very jittery when taking an important test.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

Even when I'm well prepared for a test, I feel very nervous about it.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I start feeling very uneasy just before getting a test paper back.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

During tests I feel very tense.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I wish examinations did not bother me so much.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

During important tests I am so tense that my stomach gets upset.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I seem to defeat myself while working on important tests.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel very panicky when I take an important test.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I worry a great deal before taking an important examination.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

During tests I find myself thinking about the consequences of failing.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

I feel my heart beating very fast during important tests.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

After an exam is over I try to stop worrying about it, but I can't.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

During examinations I get so nervous that I forget facts I really know.

Not at all

☐

Somewhat

☐

Moderately so

☐

Very much so

☐

(MCSD) Marlowe-Crowne Social Desirability Scale

Instructions: Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or

false as it pertains to you.

I am both a human and an alien.

False

☐

True

☐

I have spoken to someone who understood English.

False

☐

True

☐

Before voting I thoroughly investigate the qualifications of all the candidates.

False

☐

True

☐

I never hesitate to go out of my way to help someone in trouble.

False

☐

True

☐

It is sometimes hard for me to go on with my work if I am not encouraged.

False

☐

True

☐

I have never intensely disliked anyone.

False

☐

True

☐

On occasion I have doubts about my ability to succeed in life.

False

☐

True

☐

I sometimes feel resentful when I don't get my own way.

False

☐

True

☐

I am always careful about my manner of dress.

False

☐

True

☐

My table manners at home are as good as when I eat out in a restaurant.

False

☐

True

☐

If I could get into a movie without paying and be sure I was not seen, I would probably do it.

False

☐

True

☐

On a few occasions, I have given up doing something because I thought too little of my ability.

False

☐

True

☐

I like to gossip at times.

False

☐

True

☐

There have been times when I felt like rebelling against people in authority even though I knew they were right.

False

☐

True

☐

No matter who I'm talking to, I'm always a good listener.

False

☐

True

☐

I can remember "playing sick" to get out of something.

False

☐

True

☐

There have been occasions when I took advantage of someone.

False

☐

True

☐

I'm always willing to admit it when I make a mistake.

False

☐

True

☐

I always try to practice what I preach.

False

☐

True

☐

I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.

False

☐

True

☐

I sometimes try to get even, rather than forgive and forget.

False

☐

True

☐

When I don't know something I don't mind admitting it at all.

False

☐

True

☐

I am always courteous, even to people who are disagreeable.

False

☐

True

☐

At times I have really insisted on having things my own way.

False

☐

True

☐

There have been occasions when I felt like smashing things.

False

☐

True

☐

I would never think of letting someone else be punished for my own wrongdoings.

False

☐

True

☐

I never resent being asked to return a favor.

False

☐

True

☐

I have never been irked when people expressed ideas very different from my own.

False

☐

True

☐

I never make a long trip without checking the safety of my car.

False

☐

True

☐

There have been times when I was quite jealous of the good fortune of others.

False

☐

True

☐

I have almost never felt the urge to tell someone off.

False

☐

True

☐

I am sometimes irritated by people who ask favors of me.

False

True



I have never felt that I was punished without cause.

False

True



I sometimes think when people have a misfortune they only got what they deserved.

False

True



I have never deliberately said something that hurt someone's feelings.

False

True



Failed attention checks

Attention-checks: \${gr://SC_b3eUtaq3auWG9rT/Score} / 10 passed.

You have failed the attention check, so this study stops here. Sorry.

CAST intro

Attention-checks: \${gr://SC_b3eUtaq3auWG9rT/Score} / 10 passed.

Now you will go through the *choose-and-solve* task. Please read the **Experiment and Compensation Guide** (next page) before you begin.

Also, you will be mostly using the keyboards, so please look at the **Suggestions for using keys** section as well

Look at the suggestions for using keys section as well.

Experiment and Compensation Guide

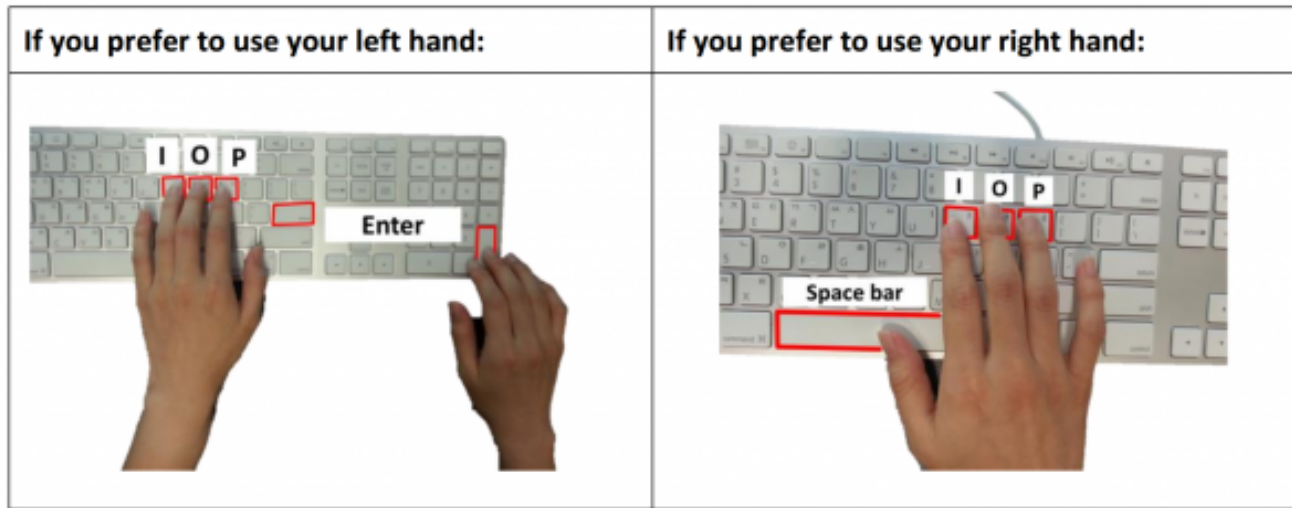
In each trial of the choose-and-solve task, you will be provided two options; solve either an easy problem with low reward or solve a hard problem with high reward. In easy problems, we expect that you will get more than 90% correct. In hard problems, the difficulty is adaptive to your competence, so that you will perform at about 70% correct for both word and math problems. You should choose what type of problem you want to solve **within 3 seconds**, otherwise you will be directed to the easy problem. Then, you will be presented with a problem of your choice, which you have to solve **within 7 seconds**. You will earn the points if you get the problem correct.

The choose-and-solve task consists of practice word and math problems, choice-making practice, and five main blocks of 28 trials each, i.e., 140 main trials. **The points you earned in the main blocks will be converted into cash bonus at the exchange rate of 1¢/point.** The maximum point you can earn from those blocks is 540, so the maximum bonus on top of the base compensation (\$2.00) are \$7.40. For example, if you score 400 points, your total compensation will be \$6.00. ***So, maximize your earnings by maximizing your points!***

Finally, **please do not use a smartphone or calculator**. We are interested in how people do these problems without any extra help.

Suggestions for using keys

Press the "i" key to select options presented on the left side of the screen, the "o" key to select options presented in the middle of the screen, and the "p" key to select options presented on the right side of the screen. An example of how you should place your fingers on the keyboard is pictured below.



After a short break, please click **Next Button** to proceed. You will begin with the practice problems.

The choose-and-solve task

If you are seeing this screen for **more than 5 minutes**, please screen-capture the screen and send the image to hpl.mturk@gmail.com

We are very sorry for the inconvenience.

Post-CAST Questions

Instructions: Read each statement and then rate how much you agree or disagree to indicate how you are feeling right now regarding the task you just completed.

The amount of points (and cash bonus) at stake was very important in choosing what problems to solve.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

It was not important for me to get the highest possible points and cash bonus.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



I think I did well on the math problems.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



The math problems were difficult.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



I enjoyed doing the math problems.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



I feel good about my performance on the math problems.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



The math problems were boring.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



It was important to do well on the math problems.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



The math problems were challenging.

Strongly
disagree



Disagree



Somewhat
disagree



Neither agree
nor disagree



Somewhat
agree



Agree



Strongly agree



I am skilled at the math problems.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I was worried about how well I would do on the math problems.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The math problems were easier than the word problems.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I could do well on the math problems if I did this task again.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I think I did well on the word problems.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The word problems were difficult.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I enjoyed doing the word problems.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I feel good about my performance on the word problems.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The word problems were boring.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

It was important to do well on the word problems.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The word problems were challenging.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I am skilled at the word problems.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I was worried about how well I would do on the word problems.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The word problems were easier than the math problems.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I could do well on the word problems if I did this task again.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



How interested are you in attending another study but with only math problems?

Not interested

Very interested



How interested are you in attending another study but with only word problems?

Not interested

Very interested



Please describe how you solved the word problems.

Please describe how you solved the math problems.

In this experiment, you were often asked to decide between solving an easy word problem for 2 points and a hard word problem for 5 points (e.g. Easy Word 2 vs Hard Word 5). Which option did you normally pick? Why? If your choice often fluctuated, please try to explain your rationale.

Also, you were often asked to decide between solving an easy math problem for 2 points and a hard math problem for 5 points (e.g. Easy Math 2 vs Hard Math 5). Which option did you normally pick? Why? If your choice often fluctuated, please try to explain your rationale.

What percentage of problems do you think you got correct?

0 10 20 30 40 50 60 70 80 90 100

Easy Word problems

Easy Math problems

Hard Word problems

Hard Math problems

We are almost done.

You may take a short break. Please continue if you are ready.

Demographic Questions

What year were you born?

Please select one of the following categories for your Gender.

- ☐ Female
- ☐ Male
- ☐ Other
- ☐ Prefer Not to Answer

Is English your first language?

- ☐ Yes
- ☐ No

Please rate your fluency of English (A1-C2 refers to the CEFR levels) :

(A1) I can interact in a simple way provided the other person talks slowly and clearly and is prepared to help.
(A2) I can describe in simple terms aspects of my background, immediate environment and matters in areas of immediate concern.
(B1) I can describe my experiences and events, dreams, hopes, and ambitions and briefly give reasons and explanations for opinions and plans.
(B2) I can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.
(C1) I can use language flexibly and effectively for social, academic, and professional purposes.
(C2) I can express myself spontaneously, very fluently, and precisely, differentiating finer shades of meaning even in the most demanding situations.

If you were born outside the United States, at what age did you move to the U.S.?

What is your highest level of education completed?

- | | |
|---|--|
| <input type="radio"/> Less than high school | <input type="radio"/> Bachelor's degree |
| <input type="radio"/> High school diploma/GED | <input type="radio"/> Advanced degree |
| <input type="radio"/> Some college | <input type="radio"/> Prefer not to answer |

Please tell us your test scores. Please leave blank if you don't remember them.

	Year test taken	Total score	Reading / Verbal score	Math / Quantitative score
SAT	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ACT	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
GRE	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

What is the highest level math course you have taken?

- | | |
|-----------------------------------|--|
| <input type="radio"/> Pre-algebra | <input type="radio"/> Trigonometry |
| <input type="radio"/> Algebra 1 | <input type="radio"/> Calculus |
| <input type="radio"/> Geometry | <input type="radio"/> Higher than Calculus |

☐ Algebra 2☐ Prefer not to answer

Are you currently taking any math classes?

☐ Yes☐ No

If you are taking math classes, please write the course title:

If applicable, what is (was) your major in college? (Please be as specific as possible. For example, if you were an education major please specify early childhood or secondary and any licenses.)

If applicable, what is (was) your second major?

If applicable, what are (were) your minors?

If applicable, what math courses did you take in college? Please write the course title.

Where do you currently live? Please provide your ZIP code.

Please select one of the following categories for your Ethnicity.

☐ Hispanic or Latino☐ Not Hispanic or Latino☐ Prefer Not to Answer

Please select one of the following categories for your Race.

- | | |
|---|--|
| <input type="radio"/> American Indian or Alaska Native | <input type="radio"/> White |
| <input type="radio"/> Asian | <input type="radio"/> Other |
| <input type="radio"/> Black or African American | <input type="radio"/> Prefer Not to Answer |
| <input type="radio"/> Native Hawaiian or Other Pacific Islander | |

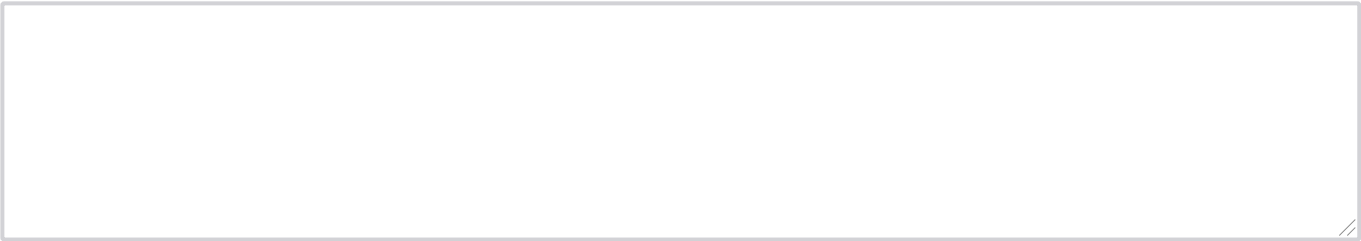
Which of the following categories best describes your family's annual gross income?

- | | |
|--|--|
| <input type="radio"/> Less than \$15,000 | <input type="radio"/> \$75,000 to \$99,999 |
| <input type="radio"/> \$15,000 to \$34,999 | <input type="radio"/> \$100,000 or more |
| <input type="radio"/> \$35,000 to \$49,999 | <input type="radio"/> Prefer not to answer |
| <input type="radio"/> \$50,000 to \$74,999 | |

In this study, you completed several tasks and questionnaires. Please describe below what you thought about the purpose of the study. If you were not sure what the purpose was, just indicate it below.

Please describe any benefits you have experienced from time spent outside. Please give one or more examples in which you noticed these benefits.

We highly value your participation and feedback. Do you have suggestions regarding this study or how your experience in this study could have been improved?



Powered by Qualtrics