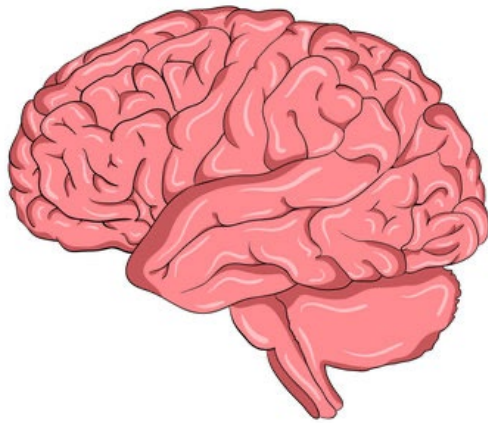




Decision Making: An Era of Information Overload



Zahra Osman



Biography

My name is Zahra Osman, and I am a grade eleven student at Lester B. Pearson High School. This is my seventh year participating in the science fair. In my first year participating, I won a gold medal and the Terry and Sharon Allen Special Merit Award for Elementary. In my second year of participating, I was chosen to go to CYSF, but the COVID-19 pandemic occurred, meaning the fair was cancelled. Thankfully, I was chosen and able to participate for the past five years. I enjoy researching new topics, and I find the fair very interesting as it is a great way to display different ideas and projects.

I really enjoy playing basketball. I was fortunate enough to be chosen to play on two separate teams. My teams are like my second family. I am so grateful to have the opportunity to play and create wonderful memories with my friends. Basketball is a beautiful sport that teaches cooperation and stability. It is an efficient way of keeping healthy and fit. Alongside playing basketball, I enjoy reading and writing poetry.

For this year's science project, I chose to focus on information overload and decision making. My project focuses primarily on the impact an influx of information has on an individual's ability to make decisions. It is difficult to understand an issue when there is too much information. We have limited cognitive processing capabilities so when the input exceeds our capacity, we struggle with making good decisions. Specifically, for teenagers, our brains are not fully developed. The prefrontal cortex that is responsible for thinking, problem solving, planning, judgement, decision-making, and focusing is one of the last parts to develop. It doesn't fully develop until we are in our mid-20s. The amygdala, however, is responsible for emotions. It develops before the prefrontal cortex. During adolescence, there is a period when they are not connected which means our decisions are heavily driven by emotions. It is thus important to spread awareness regarding information overload to learn how to filter information. Teenagers are risk takers and the decisions we make can affect our lives.

Question

Will students at Lester B. Pearson High School feel overwhelmed when trying to make decisions after experiencing information overload?

Purpose

The purpose of this experiment is to investigate how information overload impacts decision making in teenagers.

Background

What is Information Overload?

Information overload, also known as cognitive overload, occurs when an individual attempts to make a decision and/or complete a task but is burdened with a surplus of information. As technology continues to evolve and imbed itself within our society, information becomes increasingly accessible, meaning individuals may struggle or even fail to make a decision given the abundance of information.

Why is Information Overload an Important Issue?

Information overload can be overwhelming for individuals as they encounter thousands of pieces of information each day. This is especially significant for students, whose phones provide them with an unlimited amount of information that is easily and efficiently accessible. Examples of the challenges information overload creates for students include struggling to complete coursework due to difficulty analyzing a large amount of information, and negatively impacting the social, mental, and physical well-being when burdened with too much information. Information overload may also trigger stress and fatigue in students, leading them to become more irritable or irrational when overwhelmed with information.

Is Information Overload a New Concept?

Information overload is not a new concept. Information overload was also an issue of the past, affecting crucial time periods of human development such as the Renaissance Age and Industrial Revolution. That being said, the term “information overload” was created by political science professor, Betram Gross, in 1964 when he published his work, “The Managing of Organizations”. The current period we live in can be referred to as the “Information Age.” This is because the availability of important information with minimum cost through digital platforms has increased the amount of information received ever in history. Therefore, while information overload has existed in the past, this problem has become more dire to individuals now.

Implications of Information Overload on Mental Health

While information overload impacts all components of an individual's well-being, it is especially important to discuss how this problem affects an individual's mental health. There are four main mental health implications:

1. **Development of anxiety and stress.** When an individual attempts to interpret all the information they are receiving, they may feel anxious and stressed while doing so, leading them to feel like they are unable to process the information. Also, excessive information can lead to the mind being overwhelmed with confusion and restlessness, inducing various psychological effects, such as depression, irritability, and mood swings.
2. **Impeding on sleep.** An individual's dependence on their digital device(s) and desire to always be up to date on information can disrupt their sleep schedule and circadian rhythm. When an individual's sleep becomes disrupted and they become fatigued, this can elevate their stress levels and upset their mood.
3. **Reduced attentiveness.** It becomes difficult for an individual to focus on one task at a time when their attention is divided by various distractions. The information overload that is created from numerous sources hinders an individual's ability to concentrate, impeding their intellectual capabilities. As a result, this may lead to feelings of frustration and a sense of failure, decreasing an individual's productivity and efficiency in completing their normal, everyday tasks.
4. **Insecurity and social comparison.** A vast majority of information today stems from social media, specifically pertaining to influencers' lives. When an individual chooses to compare themselves with others on social media, this may taint their self confidence and create insecurity. This insecurity then leaves an individual feeling dissatisfied and discontent with their own life, negatively impacting their behaviours, relationships, and perception of life.

Implications of Information Overload in Education

Being that information overload significantly impacts teenagers, the educational implications of this issue should also be discussed. There are three primary implications:

1. **Information Anxiety.** Students can develop anxiety from attempting to filter large amounts of information, and from the fear of failing to acknowledge relevant information.
2. **Quality Versus Quantity.** Students may engage in superficial learning because they begin to focus more on the quantity of information they are discussing, rather than the quality of it. Consequently, having too much information makes it difficult for students to determine the credibility of the sources they are using.
3. **Decreased Attention Span.** Interacting with too much information can overwhelm students, decreasing their attention span. It is challenging to focus all of one's attention on a single topic for a long period of time, impeding their ability to retain information efficiently.

What is the Science Behind Decision Making?

Decision making is the process of the brain analyzing choices and comparing consequences to understand how to approach a situation. There are two primary regions of the brain responsible for decision making. The first region is the prefrontal cortex which is the administrative center of the brain that is responsible for superior thinking processes. This includes decision making, planning, and reasoning. Specifically, the dorsolateral prefrontal cortex, located inside of the prefrontal cortex, uses prior experiences and future objectives as the basis for analyzing and making

decisions. The second region is the limbic system, specifically the amygdala and hippocampus, which examine memories and emotions, that influence the decisions and individual make.

When focusing on decision making in teenagers, understanding when these regions of the brain develop is significant. Every individual is born with a developed amygdala, but their prefrontal cortex is still developing when an individual reaches their teenage years. This indicates that teenagers make emotion-driven decisions, lacking the rationality provided by the prefrontal cortex. This can lead teenagers to misinterpret social cues, act impulsively without thinking, and be less responsive to changing their personal behaviours. Taken together, this highlights that decision making looks different in teenagers, affecting the way they respond to information overload.

It is also important to acknowledge the different circuits and pathways involved in decision making. Decision making is a complex and collective effort arranged by neural circuits interconnected to relay information to one another through neurotransmitters, like dopamine and serotonin. Specifically, dopamine is associated with the expectancy of rewards, forming preferences and affecting the decisions made by individuals. Furthermore, these neurotransmitters regulate mood, reward processing, and motivation, impacting decision making. Also, specific neural pathways are related to different types of decisions. For example, the reward system of the brain is used more intently when making decisions concerning risk and uncertainty.

Strategies to Overcome Information Overload

As information overload becomes increasingly prevalent, individuals, especially students, need strategies to rely on to help them overcome this problem. Some examples are listed below:

- Create goals to focus solely on information that is relevant.
- Refrain from multitasking as it distracts the brain with nonessential demands and information.
- Utilize platforms to record and organize information.
- Take breaks to allow the brain to relax.

Interviews

On Monday, March 10th, 2025, I had the opportunity to interview two amazing individuals: Dr. Peter Choate, a professor from Mount Royal University, and Dr. Hetty Roessingh, a professor from the University of Calgary. The full set of questions that I asked them can be found at the back of my logbook. Below are the key points from each interview.

Dr. Peter Choate

- Teenagers are exposed to demands outside of the normative curve.
- The input comes from outside of the normative curve (e.g., social media).
- Difficult to hold on to an understanding of self because of cognitive bias.
- Risk taking is about understanding who you are, but we must have self-identified boundaries.
- Bad decisions are made when teenagers take risks to live up to an image or an expectation.

- Teenagers do not fully develop abstract thinking until they are in their late teens to early twenties.
- The less connected kids are to grounded social positioning, the more they're willing to take poorly thought through risks.
- If you become addicted to social media, you don't socialize with people – you socialize with images of people.
- In turn, you miss substantial amounts of interactional information.
- If we wait until you are 15, we've already allowed the creation of a series of informational and social pathways to develop, and we haven't done anything to create critical thinking.
- Social media presents to us in such a way that anyone sounding like they know what they're talking about gets credibility (i.e., misinformation).
- Attention span is dropping, and we want instant answers.
- We don't want to do the work – we just want the answers.
- We need to slow down the flow of information and create room for reflection.
- Constant flow of information makes us never quite sure because we can't quite keep up.

Dr. Hetty Roessingh

- We are living in complex times and information overload.
- When you read, listen or see this material, it contributes to anxiety, sadness and even depression.
- There should be broad rules that say these things are appropriate for you and your age group.
- Young adults are not able to fully independently make decisions that are high stakes ones (e.g., driving).
- Cognitive coaching is getting a teenager to just tell themselves to stop and think.
- Peer pressure makes teenagers prone to risky behaviour.
- They can't override their lack of brain maturity quite yet.
- Critical thinking skills – can you see the signs of misinformation, propaganda, and moral lies?
- You need to ask questions. Is this a reasonable source? Is this a source of information that is trustworthy? When I am reading information on the internet, where am I getting it from? Can I trust this source? You must be aware of bias.
- It is important to recognize mental exhaustion and reduced focus early and put in place structures and supports and ways of taking control.
- Cheating has increased because of an ease of access to information.
- Treatment for feeling overwhelmed – cognitive coaching and recognizing the signs within yourself that you are being overwhelmed, and you may need to seek help.
- Teenagers at large perceive that guidance counsellors at school are helpful and available to help in navigating difficult times.

Hypothesis

I predict that the students at Lester B. Pearson High School will feel overwhelmed when trying to make decisions after experiencing information overload. Their responses to the questions asked during the simulation and a post-experiment survey will be an indicator of this.

Materials

Please refer to my logbook to see a complete copy of the materials used in my project.

- The video simulation presented to the students.
- The simulation questions the students were asked to complete.
- The post-experiment survey the students were asked to complete.

Variables

Controlled

- The simulation questions the students were asked to answer.
- The post-experiment survey the students were asked to answer.
- The materials the students were asked to use.
- The length of time given to the students to answer the simulation questions and post-experiment survey.

Manipulated

- The length of time given to the students to read the information presented in the simulation video.
- The length and text size of information given to the students in the simulation video.

Responding

- How the students felt when overloaded with information.
- The students' answers to the simulation questions.
- The students' responses to the post-experiment survey.

Forms

Please refer to the end of logbook to see the Informed Consent Forms.

Procedure

- I filled out the Ethics and Due Care Form and it was approved by Calgary Youth Science Fair on February 5th, 2025.
- I reached out to three Lester B. Pearson High School teachers, Mr. Benjamin Webster, Ms. Narmeen Mithani, and Mrs. Katie Kolar, and asked for their permission to use their students in my experiment.
- I conducted my experiment in early March 2025.

- Details of the experiment:
 - Students were provided with the simulation questions and post-experiment survey.
 - They were required to sign an Informed Consent form to participate in my experiment.
 - After providing the students with a brief introduction of the simulation, I began the simulation video (please see logbook), where they were required to answer questions based on the information presented.
 - To simulate information overload, I presented the students with an increasing amount of information and asked them questions related to that information afterwards.
 - Once all the students completed the experiment, they were given the post-experiment survey to complete.

Results

Please refer to the end of my logbook to see my observation tables and graphs.

Analysis

The first three questions are deliberately the same to test whether students would feel less confident when asked about their perceived more popular sport as they were incrementally given more information. Students who chose soccer as the most popular sport in the first question did not change their response when asked again in question two or three when given more information. However, 10% of the 52% of students who chose basketball in the first question, changed their answer to “I don’t know” when asked which sport they believed to be more popular in question three. This suggests that for those students, there was additional information given that affected their confidence in committing to their initial answer.

Questions four, five, six and eight were related to the history of the McDonald’s franchise, again with increasing information provided. All students answered question four correct, which had the least amount of information. The majority of students continued to select the correct answers for questions five and six. However, with more information provided in question five, 10% of students answered, “I don’t know.” Similarly, for question six, 14% of students chose incorrect answers. Both questions six and eight had notifications about information unrelated to McDonald’s. By question eight, more students answered incorrectly at 28%.

Question seven introduced the concept of notifications, and how the information in that format is retained. While the students were provided a slide of information on McDonald’s, they received a notification to study for their upcoming math test. 24% of students answered incorrectly to this question, highlighting that when extraneous information is provided, students are less successful in retaining that information. This is particularly important as teenagers commonly receive fleeting information in the form of notifications whether that is on their phone apps, emails etc.

Questions nine to eleven were in the context of Calgary universities. 86% of students answered correctly when asked how many years earlier the University of Calgary was founded compared to Mount Royal University. However, 10% of students answered incorrectly by choosing 66 years.

This is important because they were provided with the fact that the University of Calgary was founded in 1966. This suggests that when students are provided with information quickly, they are subject to incorrectly recalling the accuracy of it. It is likely that those 10% of students chose 66 because they recalled those numbers, but did not recognize that they were in the founding year and not the difference between the universities' founding years. 100% of students were successful in answering what was Mount Royal's University mascot.

Questions twelve and thirteen, similarly to question seven, tested whether students could correctly recall extraneous information in the form of notifications. 34% and 48% of students incorrectly answered questions twelve and thirteen, respectively. This reinforces that notifications can be very distracting for students.

Following the simulation, students were given a post experiment survey to gather their thoughts on information overload. 93% of students reported that they have experienced information overload. Furthermore, 90% of students found that it is difficult to filter out what information is accurate and valuable. Interestingly, 83% of students answered that they watch TV while eating and 62% selected that they are constantly on their phone. This highlights the dependence that younger generations have on being constantly stimulated with technology. Notably, 69% of students disclosed that they experience anxiety when trying to make decisions and 66% reported that they felt mentally exhausted. This is important as it highlights that we need to improve the way information is conveyed to teenagers to mitigate the risk of anxiety associated with information overload.

The last three questions of the post experiment survey asked specifically about student feelings around the simulation. The majority of students at 62% felt that the notifications were distracting. Only 24% of students felt that it was easy to make decisions when presented with increasing amounts of information. Furthermore, question fifteen asked the students to discuss how they felt when being overloaded with information. My infographic in my results section presents some examples of the specific words and/or sentences the students used to describe their feelings. While all their feedback was important, the most common experience amongst students was being overwhelmed during information overload. This reaffirms the importance of understanding and trying to combat information overload amongst teenagers. It teaches us that youth today have increasing access to information that may be negatively impacting their wellbeing.

I would also like to note that in collecting the results from my experiment, I wanted to compare my findings to other research in this field. Unfortunately, there are not many studies that focus specifically on information overload in teenagers. One relevant study that I was able to identify, however, comes from Aadland & Heinström (2024). Their research focused on conducting qualitative interviews on teenagers between the ages of 13 and 16. They concluded that the students from their sample did face information overload in school, but the most relevant aspect of their research in comparison to my project is how their students felt overwhelmed from this important problem. As addressed previously, the most common feeling experienced by students in my sample was being overwhelmed. This therefore emphasizes the importance of my findings, and calls for further research to be conducted on information overload to promote the well-being of teenagers.

Conclusion

Information overload is an evolving issue that is disproportionately affecting younger generations that have been greatly exposed to more information through the increasing dependency of technology. My hypothesis was correct as the students at Lester B. Pearson High School felt overwhelmed when trying to make decisions after experiencing information overload. Students struggled with notifications and had wavering confidence when asked the same questions and given more information. Overall, this simulation was successful in highlighting how common and easy it is to overwhelm students with information.

Applications & Improvements

As societal reliance and integration of technology will continue to increase, it is imperative that we are aware of the stress that information overload has on teenagers. This awareness can be used to analyze the way we relay information in schools, especially with the increasing prevalence of online classes and modules.

This study would be improved with a greater sample size. It would also be beneficial in the future to compare male and females as there is data to suggest that there are age differences in the development of the prefrontal cortex between sexes and this region of the brain is vital to cognition and decision making.

Sources of Error

The first source of error I can identify from my project stems from potential cheating between students. It is possible that the students were sharing their answers to questions during the simulation, possibly skewing my results. Also, another important source of error stems from the students' prior knowledge of the topics discussed in my simulation. I intentionally introduced information in my experiment that was relevant to teenagers at my school. In particular, basketball and soccer are popular sports at Lester B. Pearson, we have a McDonald's right outside of our campus, and the University of Calgary and Mount Royal University are common schools that alumni from my school apply to. Lastly, I believe that an additional source of error may be the environment the experiment was conducted, being that I could not always control for interruptions or distractions during the simulation.

Special Thanks

I would like to begin by thanking all the Lester B. Pearson High School students that participated in my project. I would not have been able to draw the conclusions from my experiment nor spread awareness about information overload in teenagers without them. I would like to also thank Mr. Webster, Ms. Mithani, and Mrs. Kolar for giving me permission to use their students in my experiment. I would like to then thank Dr. Peter Choate and Dr. Hetty Roessingh for taking the time to talk to me and answer my questions. Their responses helped me understand information overload better and how it is a significant issue for youth today. I would also like to give a big thanks to my science coordinator, Mr. Webster. He has supported me throughout the entire duration of my project. Lastly, I would like to thank my parents for always encouraging me and helping me be the best person I can be. Without them, I would not be here today.

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Decision Making: An Era of Information Overload



1. Have you experienced information overload – the feeling of being overwhelmed by excessive information?
 - a. Yes
 - b. No
2. Do you agree that information is everywhere, and it is difficult to filter out what information is accurate and valuable?
 - a. Yes
 - b. No
3. Do you watch TV while you eat?
 - a. Yes
 - b. No
4. Do you listen to music while studying or doing homework?
 - a. Yes
 - b. No
5. Do you find it difficult to formulate your own ideas?
 - a. Yes
 - b. No
6. Is it hard to come up with new ideas when your mind doesn't have the time to think?
 - a. Yes
 - b. No
7. Do you experience anxiety when you try to make decisions?
 - a. Yes
 - b. No
8. Do you have difficulty sleeping because your mind is constantly thinking?
 - a. Yes
 - b. No

9. Do you feel mentally exhausted?
 - a. Yes
 - b. No

10. Are you constantly on your phone?
 - a. Yes
 - b. No

11. Do you have difficulty focusing on daily tasks?
 - a. Yes
 - b. No

12. Do you have difficulty multi-tasking?
 - a. Yes
 - b. No

13. Did you find that the notifications distracted you from focusing on the information presented on the slides?
 - a. Yes
 - b. No
 - c. Sometimes

14. How difficult was it to make decisions when presented with an increasing amount of information?
 - a. Easy
 - b. Difficult
 - c. I didn't find it easy or difficult

15. In one sentence, describe how you felt when there was increasing information on each slide?



Decision Making: An Era of Information Overload



This is an anonymous questionnaire. Please follow the instructions on the screen and answer each question when you are prompted to.

Question 1

- a. Basketball
- b. Soccer
- c. I don't know

Question 2

- a. Basketball
- b. Soccer
- c. I don't know

Question 3

- a. Basketball
- b. Soccer
- c. I don't know

Question 4

- a. Richard and Maurice
- b. Laurence and Ray
- c. I don't know

Question 5

- a. French fry salesman
- b. Milkshake machine salesman
- c. I don't know

Question 6

- a. To open the first drive-thru college
- b. Regulate policies and train staff
- c. I don't know

Question 7

- a. Science
- b. Math
- c. I don't know

Question 8

- a. Big Mac
- b. Fries
- c. I don't know

Question 9

- a. 43 years
- b. 66 years
- c. 9 years

Question 10

- a. University of Calgary
- b. Mount Royal University

Question 11

- a. Tigers
- b. Dinos
- c. Cougars

Question 12

- a. Math
- b. Calm
- c. I don't know

Question 13

- a. DJ got us fallin in love
- b. Eye of the Tiger
- c. I don't know

Decision Making: An Era of Information Overload

By: Zahra Osman



**Throughout this video,
you will be given
instructions to follow.**

**Please pay attention
and answer the
questions that follow!**

Let's Begin!



**Pay attention to the following
information!**

Basketball was invented in 1891 by James Naismith.

It involves dribbling a ball with your hands and shooting it into a net.

Soccer was invented in 1863 by the English Football Association.

It involves kicking a ball and shooting it into a net.

NOTIFICATION!

Please answer question one. You have 20 seconds.

Based on the information provided, which sport do you believe is more popular?





**Pay attention to the following
information!**

A basketball game involves two teams competing against each other, with five players allowed on the court at once. You will have one point guard, shooting guard, small forward, power forward, and center on each team. The team that scores the most baskets wins.

A soccer game involves two teams competing against each other, with eleven players on the field at once. You will have one goalkeeper, two fullbacks, two center backs, two center midfielders, two wings, and two forwards on each team. The team that scores the most goals wins.

NOTIFICATION!

Please answer question two. You have 20 seconds.

Based on the information provided, which sport do you believe is more popular?





**Pay attention to the following
information!**

In basketball, there are several different fouls that players may do. Each player can be awarded a maximum of five personal fouls before they can no longer play in the game. Players can commit a foul in several different ways. These can include holding their opponents' arm, pushing their opponent, and hitting their opponent. A player that has five fouls must sit on the bench. An example of a basketball violation, however, is called an over-and-back. This happens when a player dribbles the ball across the centerline into their team's side of the court but then dribbles back across the line into their opponent's side of the court.

In soccer, there are several different fouls that players may do. Each player can be awarded a maximum of two yellow cards or one red card before they can no longer play in the game. Players can earn a yellow card for several different reasons. These can include delaying the game, acting unsportsmanlike (e.g., swearing at opponents), and arguing with referees. A player that has a red card must leave the field. An example of a soccer violation, however, is being in an offside position. This happens when a player is near the opposing goalie, without two players from the other team in between them or if they do not have the ball.

NOTIFICATION!

**Please answer question three.
You have 20 seconds.**

**Based on the information
provided, which sport do you
believe is more popular?**

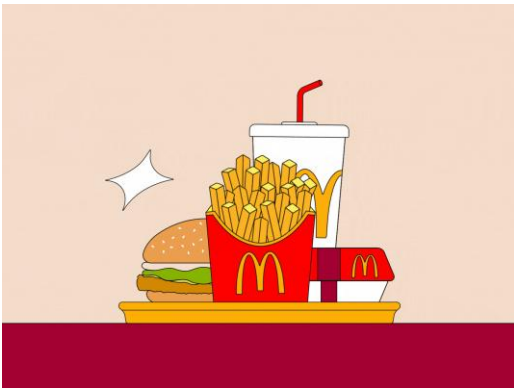




**Pay attention to the following
information!**

McDonald's was created by the McDonald brothers, Richard and Maurice, in 1940.

Their very first drive-in was built in San Bernardino.



NOTIFICATION!

Please answer question four. You have 20 seconds.

What are the names of the McDonald brothers?





**Pay attention to the following
information!**

The initial success of McDonald's stems from the brothers' Speedee Service System, which allowed customers to have warm, wrapped burgers and fries quickly. That being said, the McDonald's franchise we know today stems from the efforts of Ray Kroc, a milkshake machine salesman, that was drawn to the business.

As of 1961, Ray Kroc took over the business, buying out the brothers.



NOTIFICATION!

Please answer question five. You have 20 seconds.

What type of salesman was Ray Kroc?





**Pay attention to the following
information!**

NOTIFICATION!

Spring break starts March 24th, 2025.

After Ray Kroc took over the business, he invented Hamburger University to regulate each restaurant's policies and train staff. Hamburger University, however, was only the beginning of drastic changes to McDonald's that would completely transform the franchise into what it is today.

MUSIC NOTIFICATION!

Playing "DJ Got Us Fallin' In Love"

After Ray Kroc took over the business, he invented Hamburger University to regulate each restaurant's policies and train staff. Hamburger University, however, was only the beginning of drastic changes to McDonald's that would completely transform the franchise into what it is today.



REMINDER!

Study for upcoming math test.

After Ray Kroc took over the business, he invented Hamburger University to regulate each restaurant's policies and train staff. Hamburger University, however, was only the beginning of drastic changes to McDonald's that would completely transform the franchise into what it is today.



One big change that impacted McDonald's was the introduction of the Big Mac in 1968. It eventually became the second most popular item sold. Fries has the #1 spot.

McDonald's then became an international franchise when Richmond, British Columbia became the first non-American city to have a McDonald's restaurant.

NOTIFICATION!

Please answer question six. You have 20 seconds.

**Why did Ray Kroc invent
Hamburger University?**



NOTIFICATION!

**Please answer question seven.
You have 20 seconds.**

**What upcoming test were
you notified about to study
for?**



NOTIFICATION!

**Please answer question eight.
You have 20 seconds.**

**What is the most popular
food item sold?**





**Pay attention to the following
information!**

**The University of Calgary
(UofC) was created in 1966
and has 37,000+ students.**



**Mount Royal University
(MRU) was created in 2009
and has 15,000+ students.**



NOTIFICATION!

Please answer question nine. You have 20 seconds.

How many years earlier was the University of Calgary founded in comparison to Mount Royal University?





**Pay attention to the following
information!**

REMINDER!

Consider applying to the University of Alberta.

UofC has over 5 campuses, including the Main and Downtown Campuses, the Foothills Centre, Spyhill, and even a location in Qatar. This university also has over 250 programs that prospective students can apply to.

MRU has 2 campuses. These are the Lincoln Park Campus, which is the main campus, and the Springbank Campus. This university also has over 50 programs that prospective students can apply to.

NOTIFICATION!

Please answer question ten. You have 20 seconds.

**Would you rather go to the
University of Calgary or
Mount Royal University?**





**Pay attention to the following
information!**

REMINDER!

Choosing a good university will affect your entire future.

UofC has over \$20 million available each year to administer to students via awards, bursaries, and scholarships.

MRU has over \$5 million available to administer to students via bursaries and scholarships.

MESSAGE FROM MR. WEBSTER!

Did you hand in your last CALM assignment?!

UofC has over \$20 million available each year to administer to students via awards, bursaries, and scholarships.

MRU has over \$5 million available to administer to students via bursaries and scholarships.

UofC has had an approximate 9% decline in international student enrollments.

MRU's international student population has remained constant at about 4%.

MUSIC NOTIFICATION!

Playing "Eye of the Tiger"

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UofC is Home of the Dinos.

MRU is Home of the Cougars.

TIKTOK NOTIFICATION!

Hey! Wanna watch this cat video? Click here to do so.

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UofC has had an approximate 9% decline in international student enrollments.

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UofC is Home of the Dinos.

MRU is Home of the Cougars.

UofC had a 78% satisfaction rate by first-year students in 2020.

MRU had a 92% satisfaction rate by first-year students in 2022.



NOTIFICATION!

**Please answer question eleven.
You have 20 seconds.**

**What is Mount Royal
University's mascot?**



NOTIFICATION!

**Please answer question twelve.
You have 20 seconds.**

**Which school assignment is
due soon?**



NOTIFICATION!

**Please answer question thirteen.
You have 20 seconds.**

What song was playing?



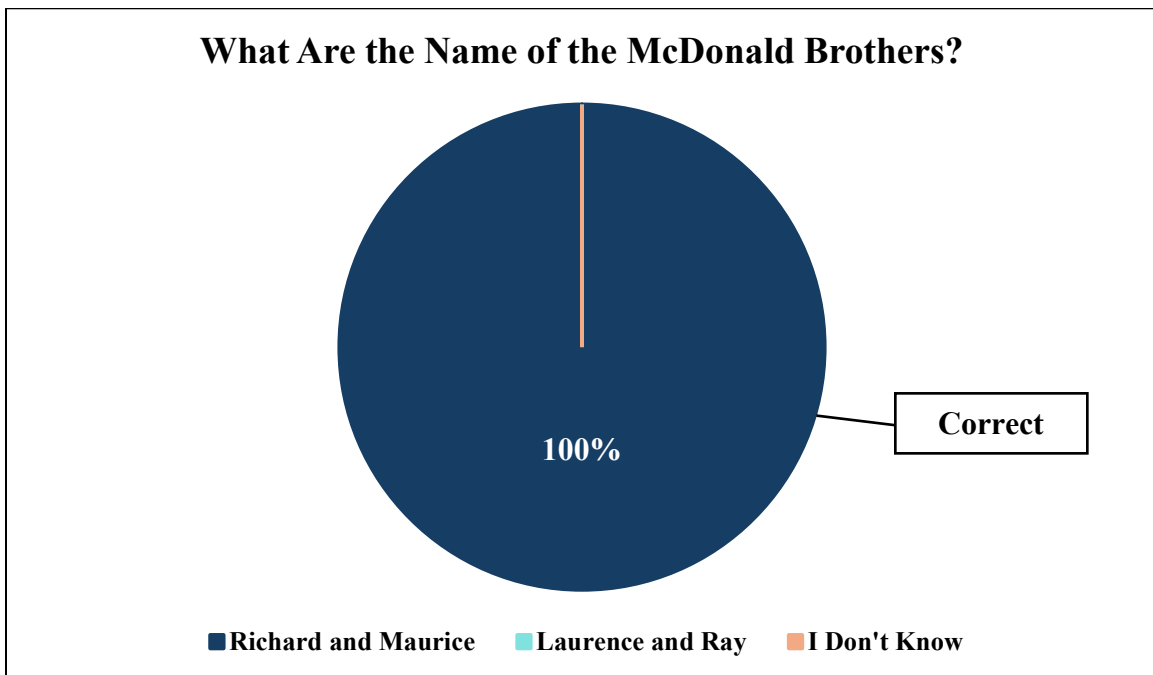
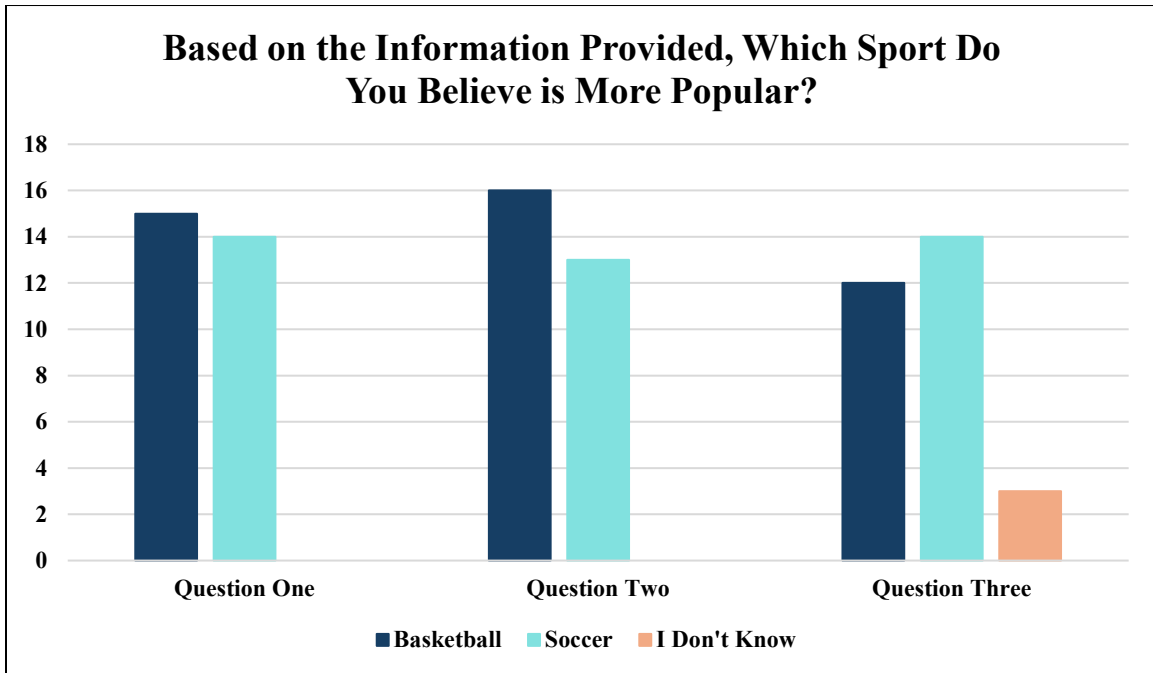


**Thank you so much for
participating!**

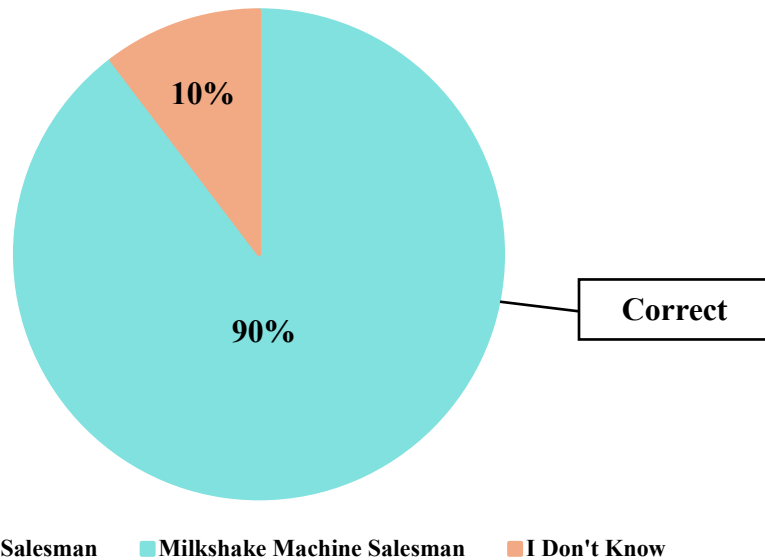
Sources Used:

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- [U of C reports \\$11 million revenue hit after international student enrolment drops | CBC News](#)
- <https://ucalgary.ca/sites/default/files/Facts-and-Figures/UCalgaryFactSheet.pdf>

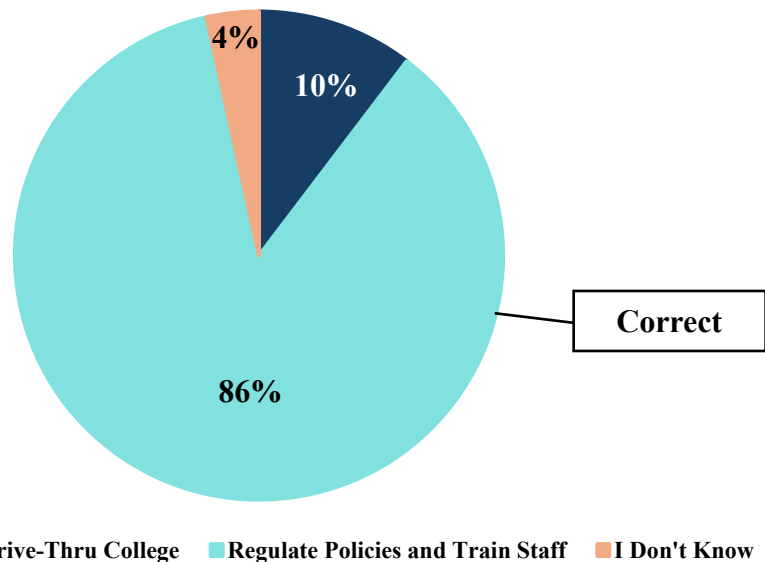
Simulation Question Results



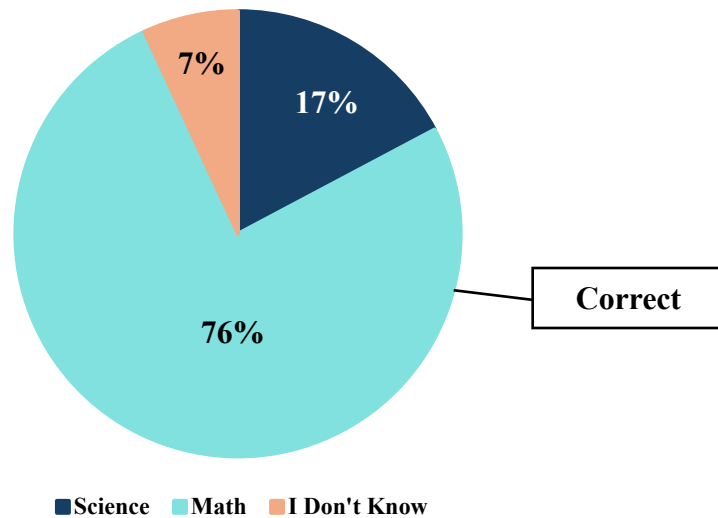
What Type of Salesman Was Ray Kroc?



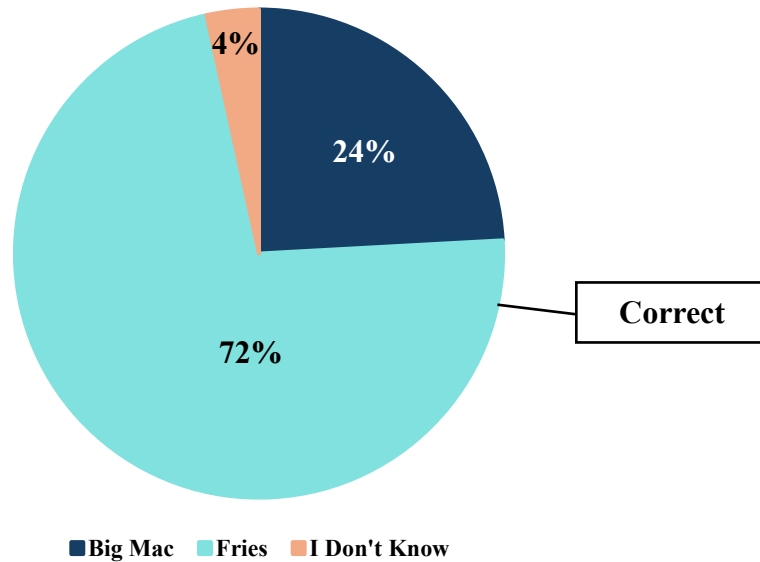
Why Did Ray Kroc Invent Hamburger University?



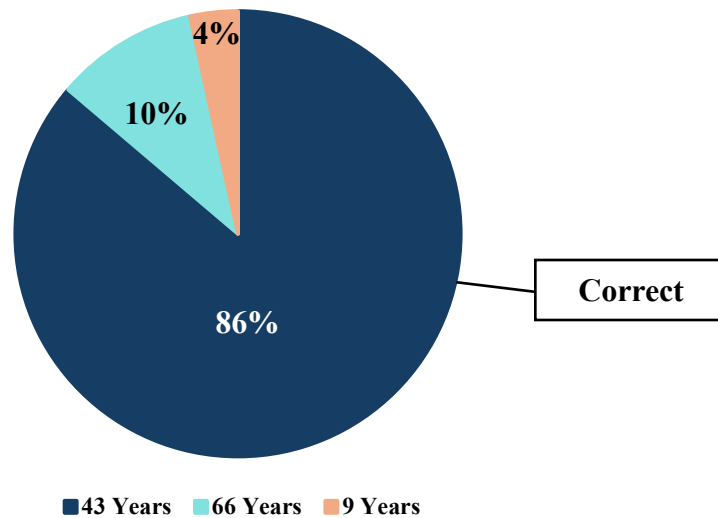
What Upcoming Test Were You Notified About to Study For?



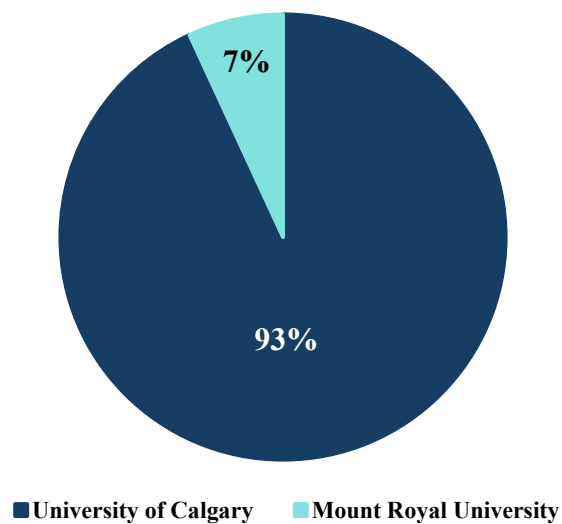
What is the Most Popular Food Item Sold?



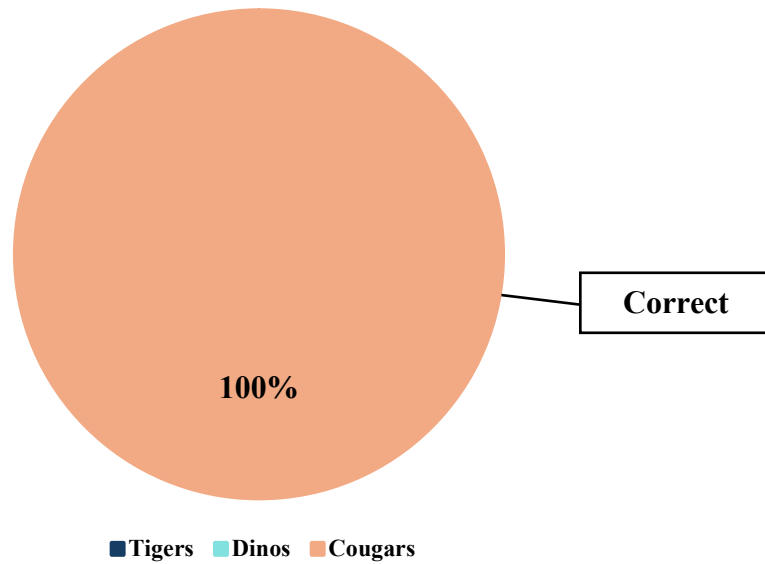
How Many Years Earlier Was the University of Calgary Founded in Comparison to Mount Royal University?



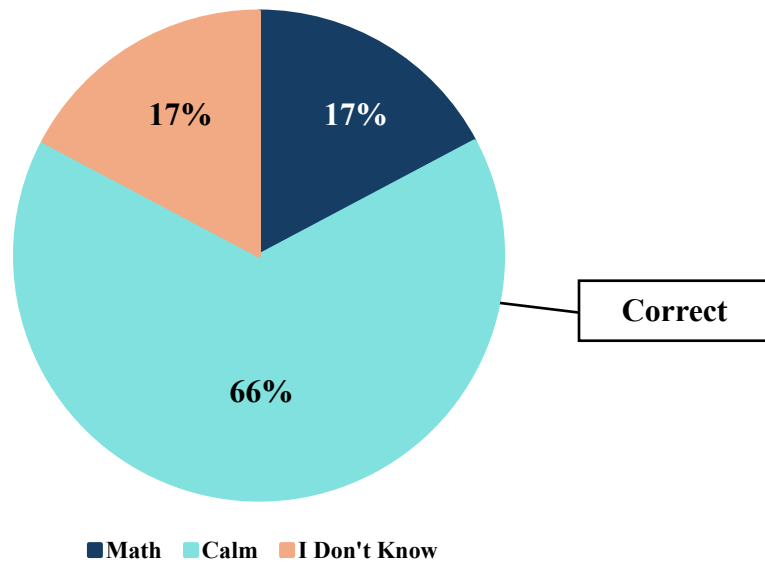
Would You Rather Go to the University of Calgary or Mount Royal University?



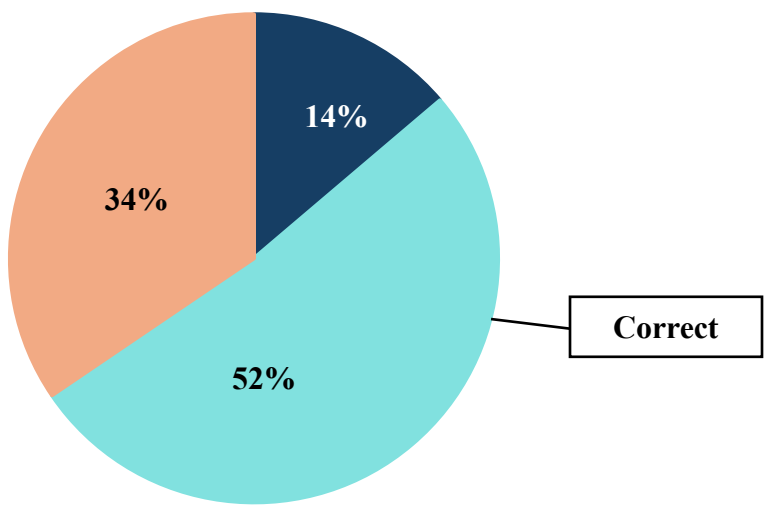
What is Mount Royal University's Mascot?



Which School Assignment is Due Soon?



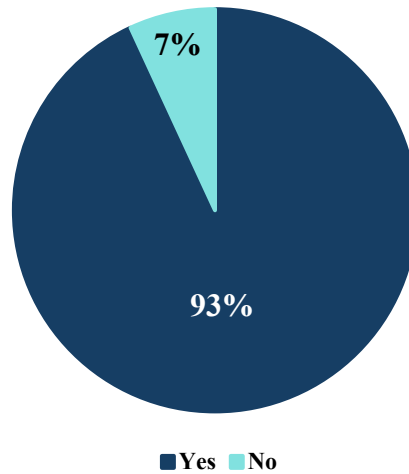
What Song Was Playing?



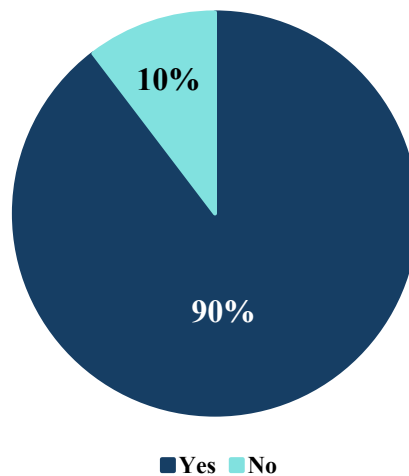
■ DJ Got Us Fallin in Love ■ Eye of the Tiger ■ I Don't Know

Post-Experiment Survey Results

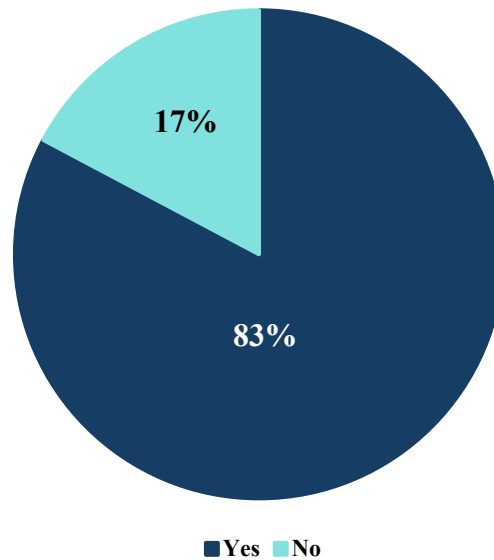
Have You Experienced Information Overload - The Feeling of Being Overwhelmed By Excessive Information?



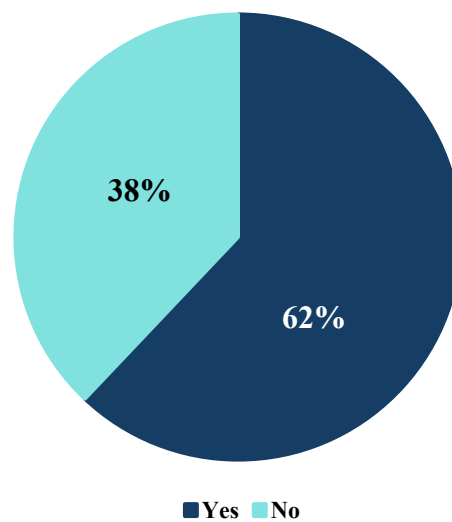
Do You Agree That Information is Everywhere, and it is Difficult to Filter Out What Information is Accurate and Valuable?



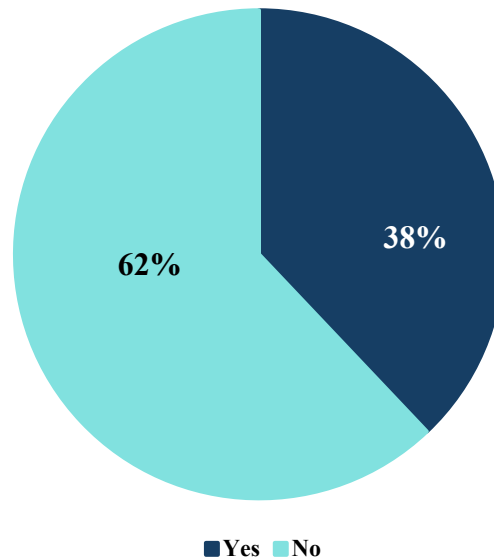
Do You Watch TV While You Eat?



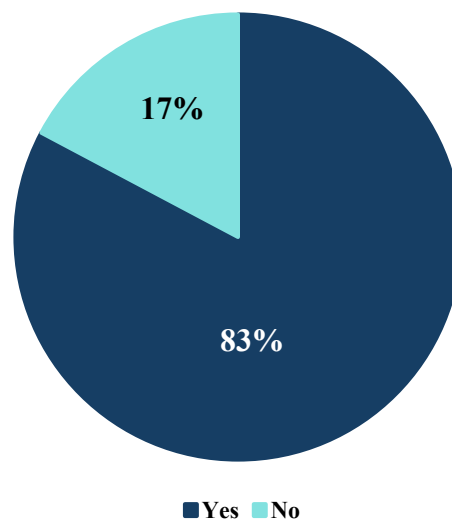
Do You Listen to Music While Studying or Doing Homework?



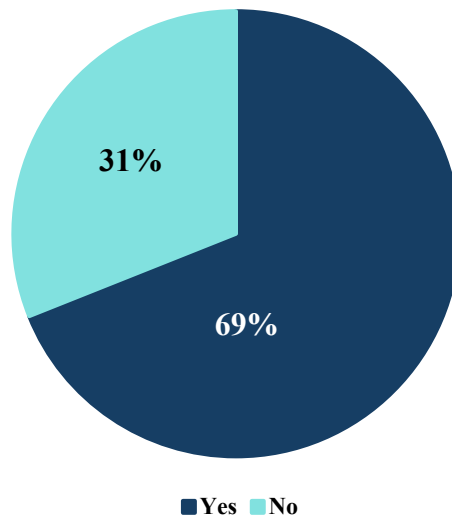
Do You Find it Difficult to Formulate Your Own Ideas?



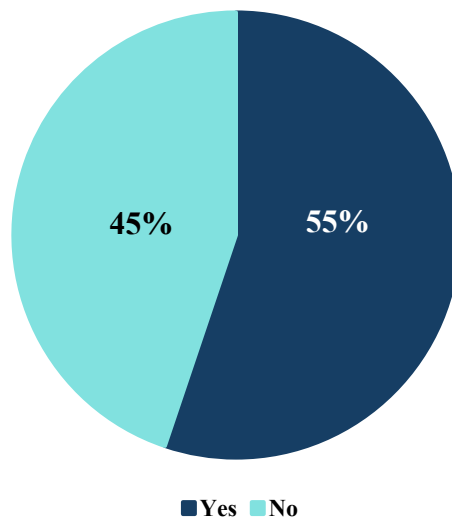
Is it Hard to Come Up With New Ideas When Your Mind Doesn't Have the Time to Think?



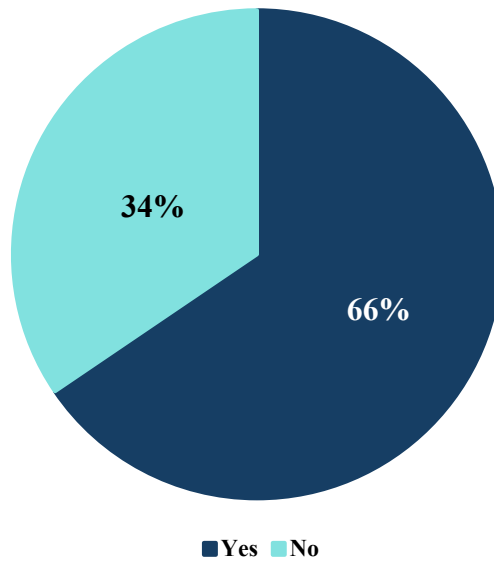
Do You Experience Anxiety When You Try to Make Decisions?



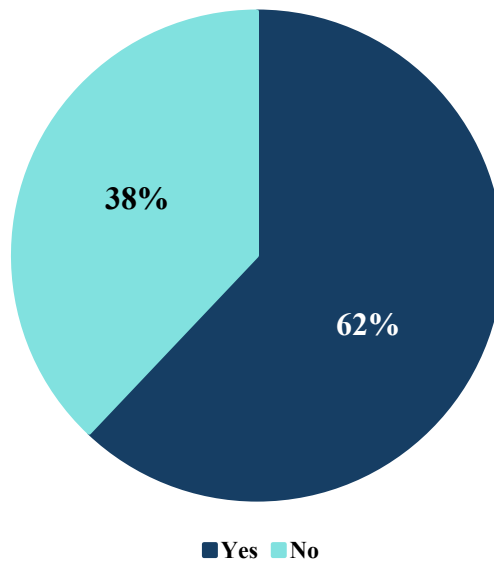
Do You Have Difficulty Sleeping Because Your Mind is Constantly Thinking?



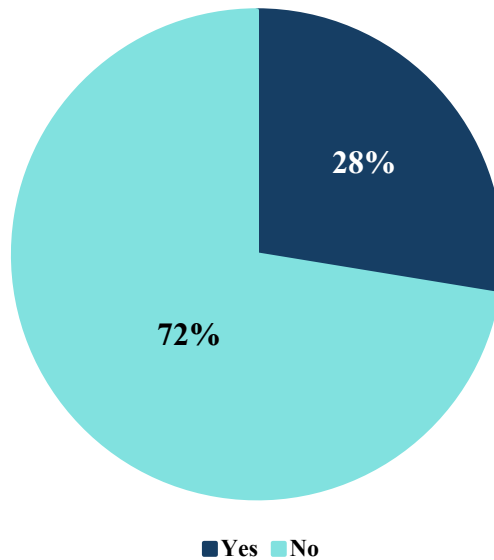
Do You Feel Mentally Exhausted?



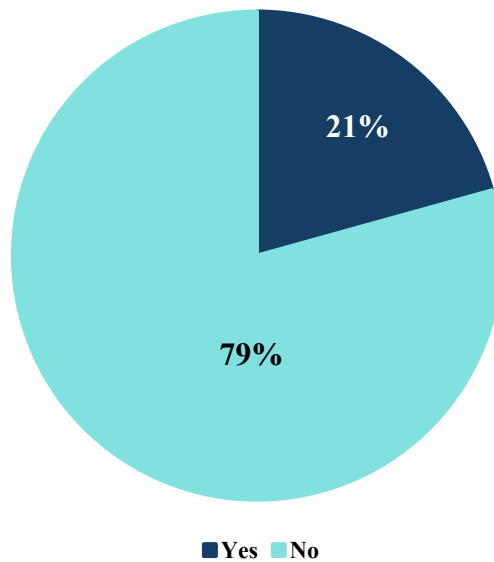
Are You Constantly on Your Phone?



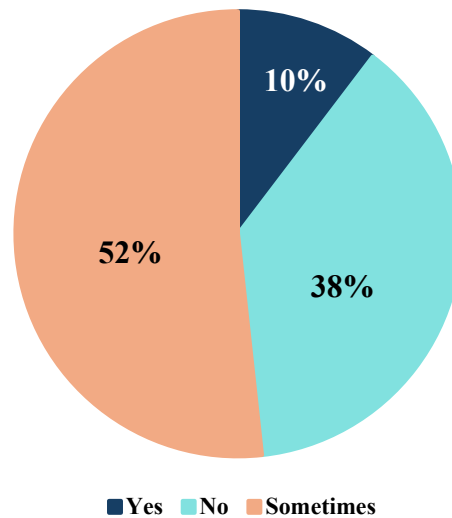
Do You Have Difficulty Focusing on Daily Tasks?



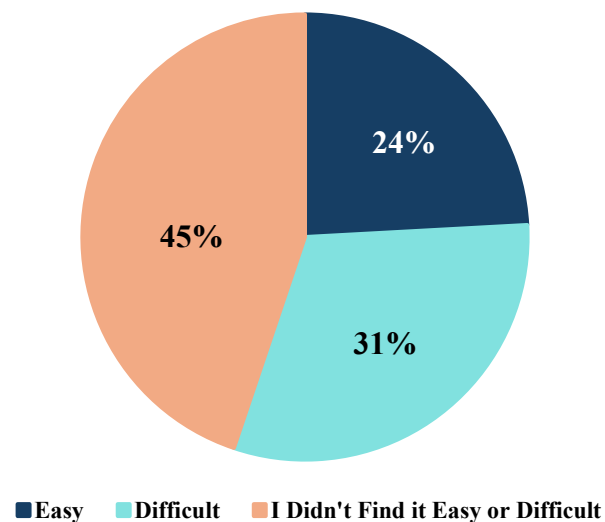
Do You Have Difficulty Multi-Tasking?



Do You Find That the Notifications Distracted You From Focusing on the Information Presented on the Slides?



How Difficult Was it to Make Decisions When Presented With an Increasing Amount of Information?



Describe how you felt when there was increasing information on each slide.



Interview with Dr. Peter Choate

1. How would you describe the mental health of a teenager experiencing cognitive overload?

Cognitive overload is a societal issue going on in the moment. There are a number of social pressures that are consistent with the teenage age of development that are not unique to the present generation but what is unique the mechanisms of which the overload occurs. This is where social media comes in. Normative social development for teenagers commences at the age of 11 or 12. At about the age of 15, the height of identity occurs. Questions like, “who am I” and “how do I fit in?” At about the age of 17 and 18, we move in to a more independent self-identity, and become less associated with group identity. In the normative curve, social media has altered some of the social context of that curve. We are then exposing teenagers to demands outside of the normative curve and the input comes from outside of the normative curve. Two generations ago, the exposure was a much smaller external and social grouping. Now both of those are larger and there are forces that have been brought in that are not related to you but cause formation of identity. Social media is flooded with physical identity issues. Instead of affirming self-identity as something unique to the self, we now begin to express self-identity as in relation to or in comparison to. There is a more of an immediacy to that external identity. If you turn on Tic Toc for 30 seconds you can come up with images of what you are supposed to look like and then you begin to believe the only way to be the way you are is to be like those people.

2. We know that the increase in information is not going to slow down or plateau. I have isolated decision making as the biggest concern with information overload. What do you feel is the biggest area of concern?

I think you are correct, but I also think that relative to that is the idea that because of social media, that changes rapidly. It is hard to hold onto an understanding of self so then cognitive bias comes in. (I am supposed to look like, behave like, belong to...) the definition of cognitive overload shifts rapidly. For example, what you order from Temu today, you would need to order something different next week because that image, that cognitive bias associated with understanding myself externally pushes me to be in that constant state of change.

3. We know that teenagers are risk takers. How do you hold them accountable in society for their actions knowing that their brains haven't fully developed?

We don't want to remove the notion of risk taking. Risk taking is about understanding who we are and we can be successful but we must have self-identified boundaries around it. For example, we all know that it is not a good idea to stand in the middle of MacLeod Trail at any given time. What is considered normative risk taking is shifting. I am faced with all these images that are telling me I should be X or Y. How do we model risk taking using things like, family, religion, school, sports, other personal activities that the self can take risk within boundaries that don't lead you to have to take a risk to live up to an image or an expectation. This is where risk taking becomes problematic.

Here is an example, a colleague of mine is doing a study on going to the gym. When does going to the gym make sense and when does going to the gym become a matter of distorted body image that requires an achievement of something that only risk can provide such as taking performance enhancing drugs. The support for performance enhancing drugs is very high on social media. This is where social media can push risk in order to conform to something that's actually very hard to conform to. This is a great question... the assumption in this question is that an immature brain is incapable of an analytical decision. I think that is wrong. The analytical decision has to be ordered in a way that we contemplate how does the brain at that age work? When you were five years old, or seven, or eight, your brain did concrete thinking really well and abstract thinking really badly. In teenage years, you begin to develop abstract thinking but you don't develop fully sophisticated skills to abstract thinking until we you are in your late teens. How can we present information that is a combination of abstract and concrete thinking, a combination of social adhesion and personal identity? We have to bring those together. A 15 year old is quite capable of a decision, but may still be prone to risk than analysis, so how do we bring analytical thinking into their decision making. Let's assume you have a car. Now, let's tape whatever modeling has existed within your immediate social circle. Does that modelling say, when I get the car, Deerfoot Trail at 150km is my goal. (My response – no that doesn't make sense to me) You just engaged in analytical thinking. That is an abstract thought. Where did it come from? (My response – a personal experience or how my parents raised me. I see other kids do that and I don't personally think that speeding makes sense or that there is a benefit to it). We can counter some of what you are worried about when we create cohesion for people to more grounded social positioning. The less connected kids are to grounded social positioning, the more they're willing to take poorly thought through risks. The more connected they are to a grounded social position, the more willing they'll think through those risks. This doesn't mean that not all of us and teenagers will tend to do something stupid. We need to know where that grounding is associated with how we make a decision. Is it close in proximity to a more grounded social position or is it a distant, more impulsive position?

4. Do you think it is important to address this issue in classrooms at an early stage?

Yes, I mean we're starting because social media is not going anywhere. So how do we begin to help kids to develop a presence in social media in a way that speaks to an understanding of the pros and cons. Chat GPT! I use it. It is a fantastic way as an academic for me to quickly do my citations. It gives me APA seventh edition citations really easily. I'm not cheating or anything. I'm not getting it to write anything for me. It's just really a fast way for me to get APA citations formatted. There are dozens of programs that do that. Should I use social media to write my academic papers and see if I can get them published? Now that becomes the next piece of where's the moral anchor? We want kids to take risks and we want adults to take risks but do so from a moral anchor. So how do I see what is on social media? My moral anchor helps me interpret, and if we start that early, then that moral anchor is something that's more rooted. You've described for me your moral anchor in your own life. How do we think about that starting in elementary school so that kids can see the benefits, see the enjoyment and see where the moral anchor is important.

They need to see the benefits of things other than electronic connection. This is where socialization matters. If you become addicted to social media you don't socialize with people, you social with images of people, like you and I are doing in the moment. This in turn means you miss substantial amounts of interactional information. A good example of that is what's behind me. It doesn't tell you much, though, does it? You have no idea what the rest of my space looks like, and you have no idea what those books are. Whereas if we're in the space together, then we begin to understand each other more thoroughly because the socialization takes place.

We can start at a young age. It's a matter of how we formulate the information. Do you have any younger siblings? Imagine you had a sibling in grade five, you would be a significant force in their lives. How could you, as a high school student, model to your sibling? How should your school model to your sibling? How should your family model to your sibling? If we wait until you are 15, we've already allowed the creation of a series of informational and social pathways to develop, and we haven't done anything to create critical thinking.

5. There are a lot of strategies to tackle information overload but with the evolution of technology and now AI, how do we know it is working? As a student, I am asked to put my phone away throughout the day while I am in school, but that is for a short period of time and the phone is not the only source of information.

There's a PHD for you in health sciences. You'll be called Dr. Osman before long. In reality, we try all kinds of things all the time and then researchers like me come along and say I wonder how successful we have been at that. We discover that this part was successful and this part wasn't. We have to make it a priority all about ensuring that what we're doing is acceptable in this society, this becomes a policy issue that must be addressed. People like yourself need to be able to have conversations with your peers and with your school and with the community to say, how do we engage in conversations with each other around us. Left to our own devices as individuals on regulated and uninformed will do what's easiest.

6. One of the strategies is filtering information. Nowadays there is a lot of misinformation. At the adolescence stage, decisions are driven by emotions... what is the best way to deal with misinformation?

It's a huge question. It comes back to being a critical thinker. Can you think about what it is you are seeing? I mean one of the things I get great joy out of is watching the critics about of food stuff on the internet, about the value of food. How do we get people to think about what it is you're seeing? There's some guy in the states and he does this thing called "Bobby Approved." He knows nothing about what he's talking about. Absolutely nothing. How do we get people to think about that. The only way we get people to think about it is to keep engaging people through forums where they are going to see this guy and be able to say, think critically about what you he is saying. Is there science behind it? Social media presents to us in such a way that anyone sounding like they know what they're talking about gets credibility.

- 7. Cognitive overload is not a new concept and over the years, with the advancements in technology, we have been flooded with information. Do you think that new generations will have less to provide to society because they are less creative, mentally exhausted and reduced focus?**

We are faced with the rapid need to alter the equation, to alter the information, to be able to challenge the information. We can take a really, really good example. This is also driven by media bias. What does the media cover? What are the stories that your generation is consuming and where are they consuming them from? How do we then, within those forms create other conversations? Have you read the New York Times? Having conversations about the New York Times is irrelevant in terms of your generation. The Calgary Herald is irrelevant to your generation. Therefore, we have to be able to have conversations as a society in the very media you are concerned about so that we can have people think that there's an alternative story there.

- 8. The reason I asked the previous question is because I am a high school student. For the last two years, if not more, I have noticed that cheating is on the rise. Cheating in its original form, copying from others and also AI. I constantly hear the phrase, well I just put it into an AI platform. Do you feel this is because of the increase in information? Are we stepping away from critical thinking?**

Great question. The attention span is dropping and we want instant answers. I don't want to have to actually work it, just give me the answer. What way then does that so in other words, I'll give you an example. I just create my teaching in a way that makes it really hard to do that. Another example, a judge came into my class today and they all had to make an application in front of the judge that they had to stand up and present. They had to articulate it. They had to be able to show this is the problem and this is why I think this action is the appropriate action and I am requesting your honour to grant that to me. Last week they had to interview a mother who had just been discharged from the hospital and her child was at risk. They had to engage in a conversation with the mother to find out what happened. AI can't answer that question. We have been asked to have people learn in ways that AI isn't really that helpful. I think we're going to have to learn to live with AI in ways that make sense. I learned the other day that there is software that we can use in the classroom to prevent cheating. You can do the assignment on your computer but the prof or the teacher can run the software and it locks you out from any other software, except for the one you're working on.

- 9. When I performed the simulation on the high school students, they were asked how they felt when there was increasing information on each slide. The majority of students used the word "overwhelmed". This was interesting because even the ones that answered all of the questions correctly had the same response. How do we treat the "overwhelming" feeling? This is obviously causing them anxiety.**

Congratulations on designing a really fascinating experiment. Well done!

We don't do as well when we have too much information coming in. Part of the challenge with social media is phones are binging, you're getting notifications on your computer. People are texting you – there is never an off period. What happens if we create off periods? What are you really missing? This is where adolescent social development comes in, actually being able to learn that you're not really missing anything. The fear of missing because of social identity and belonging. Forces beyond us utilize that information scramble (Instagram) for a variety of larger purposes. The Orange king utilizes multiple channels of communication to confuse people and tries to control that information in a way that allows him to control the agenda because no nobody's quite sure what the agenda is. He is always throwing stuff in so many different directions. Social media allows him to do that. When we slow down our exposure to social media, we begin to create room for reflection. Some people use media to keep us all unstable. The constant flow of information makes us never quite sure because we can't quite keep up.

10. Highschool students have important decisions that they are making in their high school years that will affect their future. How can we help navigate through these decisions knowing all that we know?

Reflection – We have to get them thinking about what they want to be known for? Some will say my big muscles, my fashion, fast cars, money... This is the beginning of reflection. It doesn't really matter what they come up with. It is about getting them to answer the question how do I want to be defined. I am the one who can create how I want to be defined. What do I want that to look like?

* Transcribed by self

Interview with Dr. Hetty Roessingh

1. How would you describe the mental health of a teenager experiencing cognitive overload?

We are living in complex times and information overload from watching the news and seeing the bad news. You know there is a war going on over there and now President Trump's playing all kinds of games with us. We are exposed to a lot of stuff and teenagers feel helpless about that. When you read, listen or see this material, it contributes to anxiety, sadness and even depression.

2. We know that the increase in information is not going to slow down or plateau. I have isolated decision making as the biggest concern with information overload. What do you feel is the biggest area of concern?

There is a lot of information. I say there is a huge difference between when I was a teenager. I am seventy-five now. We didn't have the internet. There is a lot of information on the world wide web. Teenagers need to have their browsing behaviours monitored and they need to be educated. Schools should survey what they are browsing. You should be able to browse what you want. There should be broad rules that say these things are appropriate for you and your age group. I was a high school teacher for twenty-nine years. For about twenty-five years, I finished my doctoral work and went to the university as a faculty member.

3. We know that teenagers are risk takers. How do you hold them accountable in society for their actions knowing that their brains haven't fully developed?

The brain doesn't really fully mature until around the age of 26. You become legally an adult at the age of 18. At that age they are much more prone to impulsive behaviours, bad decision making around things like drinking and driving, maybe speeding, things like that. We want to put in place constraints. Young adults are not able to fully independently make decisions that are high stakes ones that have to do with even driving. Every time I see something that has to do with teenagers in driving accidents, it has to do with reckless behaviour behind the wheel of a car, taking chances and taking unreasonable chances and we know that part of the teenage brain is still not developed. This is a lack of maturity and a lack of experience. Insurance rates for young adults are sky high because they are high risk. Until they are older, they take many ideas into consideration. I know I am harping a lot about driving but sitting behind the wheel of a lethal machine is dangerous.

4. Do you think it is important to address this issue in classrooms at an early stage?

I don't think you can tell an 8 year old or a 12 year old, a 15 year old or a 18 year old to not take risks. Strategies like cognitive coaching, getting a teenager to just tell themselves to stop and think. Is this a smart thing to do? I think teenagers are prone to a lot of peer pressure. This increases their risk behaviour. It's not because they are being willfully bad as much as I don't think they can override their lack of brain maturity quite yet. At home, parents have rules that kids want to regulate because they think they are unreasonable. Setting a curfew or monitoring who I am out

with is something that helped me because I did not know what was best for me. Add today's social media and distorted information, kids need parents/teachers to help with making these decisions.

- 5. There are a lot of strategies to tackle information overload but with the evolution of technology and now AI, how do we know it is working? As a student, I am asked to put my phone away throughout the day while I am in school, but that is for a short period of time and the phone is not the only source of information.**

I don't think that the brain is geared or wired or programmed to just say, I'm only 15 but I have to behave like an 18 year old, so I've got to get on with it. It's not possible. I think there are constraints on emotional development. What's the impact of a child who constantly feels hurried, stressed, too many demands that are too hard and an inability to manage those demands and access any kind of support that would offload some of those demands and reassure the teenager that one day you'll look back at this and you will laugh. Right now, it consumes your whole life.

- 6. One of the strategies is filtering information. Nowadays there is a lot of misinformation. At the adolescence stage, decisions are driven by emotions... what is the best way to deal with misinformation?**

Critical thinking skills – can you see the signs of misinformation, propaganda, and moral lies? For example Trump, how do you know when he is lying? We are reliant on a certain level of brain maturity to be able to sift out obvious misinformation. You need knowledge, background information about politics, history and so on to detect the spread of misinformation and lies. You need to ask questions. Is this a reasonable source? Is this a source of information that is trustworthy? When I am reading information on the internet, where am I getting it from? Can I trust this source? You have to be aware of bias. Can you separate gossip from real facts? If you don't have that insight because you have too much information and you are not a critical thinker, you might believe what you see and read.

- 7. Cognitive overload is not a new concept and over the years, with the advancements in technology, we have been flooded with information. Do you think that new generations will have less to provide to society because they are less creative, mentally exhausted and reduced focus?**

I think it important to recognize those things early and put in place structures and supports and ways of taking control. Guidance counsellors give students, a sense of belonging, a sense of control, sense of being listened to, a sense that they matter and their problems are not trivial. I think a lot of misinformation and ease of access of disturbing information is causing anxiety.

- 8. The reason I asked the previous question is because I am a high school student. For the last two years, if not more, I have noticed that cheating is on the rise. Cheating in its original form, copying from others and also AI. I constantly hear the phrase, well I just put it into an AI platform. Do you feel this is because of the increase in information? Are we stepping away from critical thinking?**

I think it might be ease of access to information. It is easy to cheat and now we are trying to catch the cheaters. They are tools now that highlight if papers have been plagiarized. There was an incident at UBC with first year students (teenagers) that wanted a good mark for a certain paper. They used one of these cheating outfits that generates papers and all five students all were caught at once. I think a zero tolerance policy should be applied. We're shutting you out for one semester, or just this one course. We have to make it hurt enough for people to stop. In a university setting, there is an expectation for good work and teenagers are afraid they're not going to be able to make the bar. Academic honesty and cheating has become an issue at universities. I can remember an accident not too long ago that was devastating. It was a lack of maturity and poor decision making that the teenage driver was unable to monitor and take control of a decision that had to do with speeding. His friends were killed in the car crash.

- 9. When I performed the simulation on the high school students, they were asked how they felt when there was increasing information on each slide. The majority of students used the word "overwhelmed". This was interesting because even the ones that answered all of the questions correctly had the same response. How do we treat the "overwhelming" feeling? This is obviously causing them anxiety.**

Cognitive coaching and recognizing the signs within yourself that you are being overwhelmed and you may need to seek help. The nature of the teenage brain and now there are so many competing demands, it is hard being a teenager. I think they should look at calming types of behaviours, finding ways to reduce and get rid of stress. We should have decision making processes that help students decide what is worth stressing about and what is not. The things that you have no control over, can you let them go? Accessing support counselling... Do you have a best friend or a trusted adult in your life that you feel safe to talk to about anything? I think that is really important for every teenager to have.

- 10. Highschool students have important decisions that they are making in their high school years that will affect their future. How can we help navigate through these decisions knowing all that we know?**

Guidance counsellors are important. Teenagers at large, perceive that guidance counsellors at school are helpful and available to help in navigating difficult times.

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Student Researcher (1): Zahra Osman School: Lester B. Pearson High School School Phone: 403-280-6565	Student Researcher (2): School: School Phone:
Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: Information overload acts as a barrier to teenagers tasked with decision making. This project aims to simulate and evaluate teenagers' ability to make decisions by filtering information.	
Your benefits from participating: Discussing the effect information overload has on teenagers	
Your risks from participating: None	
Your time commitment: 15-20 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
Withdrawal: Your participation is voluntary, and you have the right to withdraw at any time for any reason. If you wish to do so, please talk to the Science Fair Coordinator/Adult Supervisor.	
Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study.	
Name <u>Hetty Roessingh</u> (please print)	
Signature <u>H. Roessingh</u> Date <u>March 10, 2025</u>	
If this participant is under the age of 18, permission of a parent or guardian is also required:	
I give permission for the person named above to participate in this study.	
Name _____ (please print) Phone _____	
Signature _____ Date _____	

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By signing below, you are agreeing to participate in this study. Name <u>Peter W. Choate</u> (please print) Signature <u></u> Date <u>March 10, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name _____ (please print) Phone _____ Signature _____ Date _____	

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Your benefits from participating: Gaining awareness on the effect information overload has on teenagers	
Your risks from participating: None	
Your time commitment: 40 minutes	
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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Karanvir Bal</u> (please print) Signature <u>[Signature]</u> Date <u>2025 Mar 20</u> <i>If this participant is under the age of 18, permission of a parent or guardian is also required.</i> I give permission for the person named above to participate in this study. Name <u>Navpreet Kaur Bal</u> (please print) Phone <u>587-432-4122</u> Signature <u>[Signature]</u> Date <u>2025 Mar 20</u>	

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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Aikman Rai</u> (please print) Signature <u>Aikman Rai</u> Date <u>March 6, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Jagandeep Rai</u> (please print) Phone <u>587-897-1497</u> Signature <u>Jagandeep Rai</u> Date <u>March 6, 2025</u>	

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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Viraj Singh</u> (please print) Signature <u>Viraj</u> Date <u>March 4, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>SAUDAMINI BALIK</u> (please print) Phone <u>587-583-9199</u> Signature <u>Saudamini</u> Date <u>MAR 4, 2025</u>	

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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Sampannata Shrestha</u> (please print) Signature <u>Sampannata</u> Date <u>March 19, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required. I give permission for the person named above to participate in this study. Name <u>Smirti Shrestha</u> (please print) Phone <u>403-606-5052</u> Signature <u>[Signature]</u> Date <u>March 19, 2025</u>	

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By signing below, you are agreeing to participate in this study. Name <u>Jashanjot Singh</u> (please print) Signature <u>[Signature]</u> Date <u>12 March 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>HARMANDIEP Kaur</u> (please print) Phone <u>587-888-2291</u> Signature <u>[Signature]</u> Date <u>12 March 2025</u>	

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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Gurman Dhillon</u> (please print) Signature <u>gd3</u> Date <u>03/19/2025</u> <i>If this participant is under the age of 18, permission of a parent or guardian is also required.</i> I give permission for the person named above to participate in this study. Name <u>Rupinderjeet Dhillon</u> (please print) Phone <u>403-714-3045</u> Signature <u>Rupinderjeet Dhillon</u> Date <u>03/19/2025</u>	

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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Jaimen Singh Randhawa</u> (please print) Signature <u>J Randhawa</u> Date <u>March 20th, 2025</u> <i>If this participant is under the age of 18, permission of a parent or guardian is also required.</i> I give permission for the person named above to participate in this study. Name <u>Reena Randhawa</u> (please print) Phone <u>587 777 0524</u> Signature <u>R Randhawa</u> Date <u>March 20th, 2025</u>	

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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Bhagman Minhas</u> (please print) Signature <u>Bhagman Minhas</u> Date <u>March 20, 2025</u> <i>If this participant is under the age of 18, permission of a parent or guardian is also required.</i> I give permission for the person named above to participate in this study. Name <u>Harpreet Minhas</u> (please print) Phone <u>587-351-4132</u> Signature <u>Harpreet Kaur</u> Date <u>March 20, 2025</u>	

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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Rayna sahu</u> (please print) Signature <u>[Signature]</u> Date <u>March 19, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required. I give permission for the person named above to participate in this study. Name <u>Mamraj Sahu</u> (please print) Phone <u>403-617-6524</u> Signature <u>[Signature]</u> Date <u>March 19, 2025</u>	

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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Alveera Khan</u> (please print) Signature <u>[Signature]</u> Date <u>2025/03/20</u> If this participant is under the age of 18, permission of a parent or guardian is also required. I give permission for the person named above to participate in this study. Name <u>Muhammad Khattak</u> (please print) Phone <u>403-690-0949</u> Signature <u>[Signature]</u> Date <u>2025/03/20</u>	

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Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study.	
Name <u>AMANAT MANN</u> (please print)	
Signature <u></u>	Date <u>03/19/2025</u>
If this participant is under the age of 18, permission of a parent or guardian is also required:	
I give permission for the person named above to participate in this study.	
Name <u>HARPREET MANN</u> (please print) Phone <u>403-919-1115</u>	
Signature <u></u>	Date <u>03/19/2025</u>

INFORMED CONSENT FORM 2C



CALGARY YOUTH SCIENCE FAIR

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Student Researcher (1): Zahra Osman School: Lester B. Pearson High School School Phone: 403-280-6565	Student Researcher (2): <u>Zainab Sarfaraz</u> School: <u>Lester B Pearson</u> School Phone: <u>403-280-6565</u>
Project Title: <u>Decision Making: An Era of Information Overload</u>	
Science Fair Coordinator (Adult Supervisor): Name: <u>Benjamin Webster</u> Phone: <u>403-280-6565</u>	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
Your benefits from participating: <u>Gaining awareness on the effect information overload has on teenagers</u>	
Your risks from participating: <u>None</u>	
Your time commitment: <u>40 minutes</u>	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
Withdrawal: Your participation is voluntary, and you have the right to withdraw at any time for any reason. If you wish to do so, please talk to the Science Fair Coordinator/Adult Supervisor.	
Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Zainab Sarfaraz</u> (please print) Signature <u>Zainab Sarfaraz</u> Date <u>March 20 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Aisha Mateen</u> (please print) Phone <u>587-703-1762</u> Signature <u>Ai</u> Date <u>March 20 2025</u>	

INFORMED CONSENT FORM 2C



CALGARY YOUTH SCIENCE FAIR

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Student Researcher (1): Zahra Osman School: Lester B. Pearson High School School Phone: 403-280-6565	Student Researcher (2): School: School Phone:
Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
Your benefits from participating: Gaining awareness on the effect information overload has on teenagers	
Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
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Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Amim Ashraf</u> (please print) Signature <u>Amim Ashraf</u> Date <u>Feb 26th</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Lubna Rasool</u> (please print) Phone <u>5872849655</u> Signature <u>Lubna Rasool</u> Date <u>Feb 26th</u>	

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CALGARY YOUTH SCIENCE FAIR

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Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
Your benefits from participating: Gaining awareness on the effect information overload has on teenagers	
Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
Withdrawal: Your participation is voluntary, and you have the right to withdraw at any time for any reason. If you wish to do so, please talk to the Science Fair Coordinator/Adult Supervisor.	
Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Olivia Pagna Ry</u> (please print) Signature <u>[Signature]</u> Date <u>March 14, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Chmyvria Ung</u> (please print) Phone <u>(587) 837-1856</u> Signature <u>[Signature]</u> Date <u>March 14, 2025</u>	

INFORMED CONSENT FORM 2C



CALGARY YOUTH SCIENCE FAIR

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Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
Your benefits from participating: Gaining awareness on the effect information overload has on teenagers	
Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
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Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Vianna Ngo</u> (please print) Signature <u>Vianna Ngo</u> Date <u>Feb 27 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Trang Ngo</u> (please print) Phone <u>403 661 2411</u> Signature <u>[Signature]</u> Date <u>Feb 27 2025</u>	

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CALGARY YOUTH SCIENCE FAIR

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Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
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Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
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Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Heba</u> (please print) Signature <u>[Signature]</u> Date <u>Mar 2, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Fidaa</u> (please print) Phone <u>403-874-9416</u> Signature <u>[Signature]</u> Date <u>Mar 2, 2025</u>	

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CALGARY YOUTH SCIENCE FAIR

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Student Researcher (1): Zahra Osman School: Lester B. Pearson High School School Phone: 403-280-6565	Student Researcher (2): School: School Phone:
Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
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Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
Withdrawal: Your participation is voluntary, and you have the right to withdraw at any time for any reason. If you wish to do so, please talk to the Science Fair Coordinator/Adult Supervisor.	
Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Sergej Misic</u> (please print) Signature <u>[Signature]</u> Date <u>March 7th 2028</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>MATILDA MISIC</u> (please print) Phone <u>778-554-6988</u> Signature <u>[Signature]</u> Date <u>March 7th 2028</u>	

INFORMED CONSENT FORM 2C



CALGARY YOUTH SCIENCE FAIR

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Student Researcher (1): Zahra Osman School: Lester B. Pearson High School School Phone: 403-280-6565	Student Researcher (2): School: School Phone:
Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
Your benefits from participating: Gaining awareness on the effect information overload has on teenagers	
Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
Withdrawal: Your participation is voluntary, and you have the right to withdraw at any time for any reason. If you wish to do so, please talk to the Science Fair Coordinator/Adult Supervisor.	
Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Amberdeen Kaur</u> (please print) Signature <u>[Signature]</u> Date <u>March 2, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Gurpreet Kaur</u> (please print) Phone <u>(403) 613-2454</u> Signature <u>[Signature]</u> Date <u>March 2, 2025</u>	

INFORMED CONSENT FORM 2C



CALGARY YOUTH SCIENCE FAIR

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Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
Your benefits from participating: Gaining awareness on the effect information overload has on teenagers	
Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study.	
Name <u>Han Ly</u> (please print)	
Signature <u>Han</u> Date <u>March 17 2025</u>	
If this participant is under the age of 18, permission of a parent or guardian is also required:	
I give permission for the person named above to participate in this study.	
Name <u>Hoa Dao</u> (please print) Phone <u>403-991-0502</u>	
Signature <u>[Signature]</u> Date <u>March 17, 2025</u>	

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CALGARY YOUTH SCIENCE FAIR

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Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
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Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
Withdrawal: Your participation is voluntary, and you have the right to withdraw at any time for any reason. If you wish to do so, please talk to the Science Fair Coordinator/Adult Supervisor.	
Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Xongxaijun Phayouphone</u> (please print) Signature <u>[Signature]</u> Date <u>2025/03/19</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Rhecie Phayouphone</u> (please print) Phone <u>403-605-0039</u> Signature <u>[Signature]</u> Date <u>2025/03/19</u>	

INFORMED CONSENT FORM 2C



CALGARY YOUTH SCIENCE FAIR

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Student Researcher (1): Zahra Osman School: Lester B. Pearson High School School Phone: 403-280-6565	Student Researcher (2): School: School Phone:
Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
Your benefits from participating: Gaining awareness on the effect information overload has on teenagers	
Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
Withdrawal: Your participation is voluntary, and you have the right to withdraw at any time for any reason. If you wish to do so, please talk to the Science Fair Coordinator/Adult Supervisor.	
Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Inaya Rehmani</u> (please print) Signature <u>Inaya</u> Date <u>March 6, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Akhtar Rahmani</u> (please print) Phone <u>403-464-2635</u> Signature <u>Akhtar</u> Date <u>March 6, 2025</u>	

INFORMED CONSENT FORM 2C



CALGARY YOUTH SCIENCE FAIR

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Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
Your benefits from participating: Gaining awareness on the effect information overload has on teenagers	
Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
Withdrawal: Your participation is voluntary, and you have the right to withdraw at any time for any reason. If you wish to do so, please talk to the Science Fair Coordinator/Adult Supervisor.	
Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Mooria Akbar</u> (please print) Signature <u>Mooria</u> Date <u>March, 19, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Farzana Akbar</u> (please print) Phone <u>403-903-1741</u> Signature <u>Haidi</u> Date <u>March, 19, 2025</u>	

INFORMED CONSENT FORM 2C



CALGARY YOUTH SCIENCE FAIR

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Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
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Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
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Review: This project has been reviewed by the Ethics Committee of the Calgary Youth Science Fair Society and has received permission to proceed.	
Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Amya Gafar</u> (please print) Signature <u>Amya G</u> Date <u>March 7th 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Darceli Tel</u> (please print) Phone <u>403-400-6348</u> Signature <u>[Signature]</u> Date <u>March 7th 2025</u>	

INFORMED CONSENT FORM 2C



CALGARY YOUTH SCIENCE FAIR

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Student Researcher (1): Zahra Osman School: Lester B. Pearson High School School Phone: 403-280-6565	Student Researcher (2): School: <u>Lester B. Pearson</u> School Phone:
Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
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Your risks from participating: None	
Your time commitment: 40 minutes	
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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Safah Alvasseen</u> (please print) Signature <u>S. A</u> Date <u>March 7, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Fatema Kaddum</u> (please print) Phone <u>403-402-1080</u> Signature <u>F</u> Date <u>March 7, 2025</u>	

INFORMED CONSENT FORM 2C



CALGARY YOUTH SCIENCE FAIR

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Student Researcher (1): Zahra Osman School: Lester B. Pearson High School School Phone: 403-280-6565	Student Researcher (2): School: School Phone:
Project Title: Decision Making: An Era of Information Overload	
Science Fair Coordinator (Adult Supervisor): Name: Benjamin Webster Phone: 403-280-6565	
Project Description: The purpose of my experiment is to investigate how information overload impacts decision making in teenagers. The experiment involves watching a video that simulates information overload. You will be asked to answer questions related to decision making. After watching the video and answering the questions, each student will receive a feedback survey to discuss the simulation experience. A select group of students will be interviewed by myself for additional information.	
Your benefits from participating: Gaining awareness on the effect information overload has on teenagers	
Your risks from participating: None	
Your time commitment: 40 minutes	
The confidentiality of your data: The results of this research will be given with all information about individual participants removed. No personal information will be stored on a computer. All information on paper that could be used to identify individuals will be shredded at the end of the research project.	
Withdrawal: Your participation is voluntary, and you have the right to withdraw at any time for any reason. If you wish to do so, please talk to the Science Fair Coordinator/Adult Supervisor.	
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Feedback: The results of this research will be provided to you in the public presentation of the Science Fair Project.	
By signing below, you are agreeing to participate in this study. Name <u>Ali Al-Kapchi</u> (please print) Signature <u>Ali</u> Date <u>March 14 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>SALMA BARIH</u> (please print) Phone <u>403 400 8567</u> Signature <u>[Signature]</u> Date <u>March 14 2025</u>	

Natalie.N

INFORMED CONSENT FORM 2C



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By signing below, you are agreeing to participate in this study. Name <u>Natalie Han 619 Nham-Nguyen</u> (please print) Signature <u>HG</u> Date <u>February 27, 2025</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Thi Nguyen</u> (please print) Phone <u>[403] 8635927</u> Signature <u>[Signature]</u> Date <u>March 9, 2025</u>	

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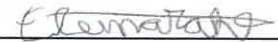

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By signing below, you are agreeing to participate in this study.	
Name <u>Lamwo Talia</u> (please print)	
Signature <u>Lamwo Talia</u> Date <u>07/03/25</u>	
If this participant is under the age of 18, permission of a parent or guardian is also required:	
I give permission for the person named above to participate in this study.	
Name <u>Sohail Shandon</u> (please print) Phone <u>403 801 6044</u>	
Signature <u>Sohail Shandon</u> Date <u>07/03/25</u>	

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By signing below, you are agreeing to participate in this study. Name <u>Zaynab El-Emarah</u> (please print) Signature <u></u> Date <u>03.05.24</u> If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Manal Al-Lami</u> (please print) Phone <u>403-715-3363</u> Signature <u></u> Date <u>03.05.24</u>	

INFORMED CONSENT FORM 2C**CALGARY YOUTH SCIENCE FAIR**

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By signing below, you are agreeing to participate in this study. Name <u>Ahmed Al Kenany</u> (please print) Signature <u>[Signature]</u> Date <u>March 5, 2025</u>	
If this participant is under the age of 18, permission of a parent or guardian is also required: I give permission for the person named above to participate in this study. Name <u>Ali Al Kenany</u> (please print) Phone <u>(403) 400-1238</u> Signature <u>[Signature]</u> Date <u>March 5 2025</u>	