



## Crohn's Disease: A Critical Thinking System Using AI-Driven Questions, Answers, and Insights

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### Abstract

We introduce a new approach to understanding how to interact with people, based upon a Socratic structure. Using the Mind Genomics approach, the user develops a short paragraph about a topic involving human behavior and decision making, that paragraph providing the embedded AI with directions about the topic, and the nature of the questions that should be asked. The system returns with 15 questions. The process can be iterated as many times as desired, with modifications to the paragraphs. The user eventually chooses four questions, and for each question the system returns with 15 answers. Again, the system is iterative. Finally, after the four questions and four answers to each question have been selected, the system returns with all iterations, one per logical page, along with AI based summarizations. We demonstrate the approach with eating and Crohn's Disease. The Idea Coach system can be used as device for rapid education, requiring no experience on the part of user, and returning the results in minutes.

**Keywords:** Crohn's Disease; Critical Thinking; AI-Driven; Insights

### Introduction

Today's world of knowledge continues to expand exponentially. The advent of the internet has further expanded the ability to diffuse this knowledge. Furthermore, the 'small screen' of the phone or the tablet, as well as the PC, have trained a generation of younger people to find information on the web, whether or not that information be valid. Finally, with all of this technology it appears that people are not necessarily getting any smarter; the scores on standardized tests keep plummeting, the attention span keeps dropping, no one really knows what to believe versus what not to believe, and worst of all, how to think critically [1,2,4,6]. Critical thinking continues to emerge as a key topic in education, almost a catch-all word to describe the type of thing which 'must be missing.' We really do not know what 'critical thinking' is, but to many it is the so-called 'pearl without price.'

During this period of decline in critical thinking, the senior author and colleagues were busy developing research methods to un-

derstand what is important to people. There was no thought about teaching people how to think. It was sufficiently difficult to create a system which would enhance our ability to understand the real world. There were methods available at the time, such as survey methods, but these were often superficial, and easily 'gamed.' The survey methods provided information but were missing the richness of experience.

It was this method, idea Map, now called Mind Genomics, which would address the issue of critical thinking on the one hand and serve as a new approach to ask relevant questions for a topic on the other. This paper shows how Mind Genomics can help users in a field, such as nutritional health, understand how to deal with patients. The specifics for this paper involve the demonstration of how Mind Genomics interwoven with AI, artificial intelligence, can teach the medical professional in a new, rapid, low-cost, and targeted fashion. The topic, chosen almost at random, is communicating with patients with Crohn's disease, with the focus being guidance requested by a new medical professional with little experience.

### The background to mind genomics.

Thirty years ago, at the September 1993 meeting of ESOMAR in Copenhagen, Howard Moskowitz and business associate Derek Martin introduced a new approach to understanding decision making. The approach was called IdeaMap®. IdeaMap allowed the user to learn about the way people think and make decisions. Idea Map required the researcher to work with simple phrases, so-called elements, which would be combined into vignettes, mixtures of ideas. The vignettes were to resemble the complexity of nature. The researcher had to develop simple phrases, messages or elements which individually painted word pictures, and were meaningful. IdeaMap would then combine these individual elements into the aforementioned vignettes, following an underlying template. The respondents, 'survey-takers' would read these vignettes, viz., combinations, one at a time, and rate each vignette on a scale. Statistics (ordinary least-squares regression and clustering) would reveal how the respondent felt about each message or element, even though the combinations seemed to be random combinations. The results were dramatic. What emerged from the exercise was a new way to understand the mind of the person by presenting complex mixtures of ideas. It was impossible to 'game the system'. In the end, the respondent simply 'gave up', assigning ratings based upon less than conscious, deliberate thought.

The importance of the approach cannot be overstated. What seemed to be a random hodge-podge of messages ended up being sorted out by the responses patterns. Statistical modeling generated information about how strongly each element, each message drove the response. The approach was in direct contrast to the typical approach of questionnaires where the respondent had to choose ideas, or rank order ideas in some order of merit.

During the past decade the use of Mind Genomics has increased, both for business and for academic uses. Experience with Mind Genomics suggests that it works in many different topics areas, ranging from business/commerce [15] to social issues [12], law [14], medicine [7], and even as a way to enhance the critical thinking of young people [11].

The actual mechanics ended up evolving to a templated, rapid, and eminently affordable DIY (do it yourself) system. Rather than working with a professional researcher, the system was put into the hands of anyone, now called the 'user.' The templated system presented the user with a set of formatted computer screens, with specific instructions. The system as currently constitutes allows

the user to name the topic, select the test materials (four questions, four answers to each of four questions), and then choose a rating scale. The questions would never appear in the study, but rather simply be used to guide the creation of the answers. In turn, it would be the answers that the respondent, the 'survey taker; would end up reading and rating 24 combinations of answers. Finally, the respondent would evaluate unique sets of 24 vignettes, each vignette comprising 2-4 elements (the aforementioned answers). The questions were never presented, just the answers in combination. At the end, the respondent would see a unique set of 24 vignettes, answers only, in what seemed a 'blooming, buzzing confusion' in the words of Harvard psychologist William James. Each respondent would end up evaluating a unique set of 24 vignettes, all sets mathematically structured the same way, but with different combinations [9]. The analysis by OLS (ordinary least square regression) immediately revealed the contribution of each element or answer to the rating scale use.

The approach may seem awkward, especially in today's world, where we are accustomed to simplistic rating scales about our experiences, e.g., a recent visit to the doctor's office or a stay at the hospital, or even shopping at the hospital for something. The respondent is given a simple set of ideas, such as friendliness, waiting time, etc., and for each idea the respondent assigns a rating. Afterwards the respondent is prompted to add more information.

As attractive as the approach is, the approach of survey questions neither presents 'real-world' descriptions of life issues, the granularity of life, nor does the survey style present the compound/complex of life. The granular moments of experience are embodied by phrases which paint word pictures about the specifics, and the granular moments of experience are mixtures of these specifics.

### The mind genomics approach and the illustration using Crohn's disease as a topic.

Over the years of experience, Mind Genomics began to encounter problems when it evolved from a tool used by experts with deep experience, and instead began to be used by non-professionals with little experience either in the topic area of the study or the opposite, extensive experience in the topic area of the study. Those with little experience were daunted by the need to come up with questions and answers. Those with a great deal of experience were daunted by the fact that they could not spew out ideas in public, diminishing their self-image.

In both cases requiring the use to provide questions proved to be a stumbling block. In contrast, high school students and younger encountered just a little bit of trepidation at the start, but once they got to the point where they could understand what to do, they often had little problem providing questions and answers, although the questions and answers were often overly simplistic.

To get an understanding of the issue and the response, consider the series of screenshots in Figure 1 (Panels A-D). Figure 1 shows the set-up sequence to create the question. After the user has created the study by giving it a title and agreeing to the terms, the user is presented with the daunting screen shown in Figure 1, Panel A. As noted above, this empty screen seems simple and inviting to the professional who has used Mind Genomics, with perhaps the only difficulty being the effort to focus one's mind enough to come up with four questions which 'tell a story'. It is at this point that people using Mind Genomics get nervous for the reasons listed above, and for other reasons. Indeed, if any reaction has been forthcoming about Mind Genomics, a good number of them have been about the difficulty of coming up with ideas. It is embarrassing to people to admit that they have a hard time thinking critically [13].

After an informal talk with a colleague about the use of Mind Genomics in medicine, the challenge was to see whether the AI embedded in Idea Coach could be used by a person considered to be outside of the medical world. The challenge was to select a condition, and, acting as a young professional seeking to learn, use AI to teach. The topic randomly selected was Crohn's disease, and the setting was to focus on a young, inexperienced doctor, learning how to interact with a patient diagnosed medically with Crohn's disease. That is, the focus was on the nature of the interaction with the patient. The objective was to learn how to interact, and to create a resource of knowledge as if one had Socrates as a tutor.

A cursory literature review of Crohn's Disease with the focus on interacting with patients suggested a moderate amount of knowledge, but an evolving field. The literature suggested that medical professionals were beginning to look at Crohn's Disease from the point of view of the sufferer, not only from the clinical point of view. On the other hand, the literature was fragmented, so that there seemed to be no 'guide' about dealing with patients, from the point of view of patients suffering from Crohn's Disease. The work was just beginning [3,5,8,10,16].

The advent of Chat GPT 3 and Chat GPT3.5 created a major opportunity to simplify the process of creating the four questions

for the Mind Genomics study (see Figure 1, Panel A) [17]. The AI embodied by Chat GPT was embodied in the Idea Coach. Figure 1 Panel B shows the request for the user to describe the problem for which the four questions were needed. The questions required a simple paragraph. The paragraphs created are shown below. The first paragraph requests the questions but does not specify the nature of the answers. The second paragraph requests a more expository nature of the questions. The second paragraph does so by adding to the prompt the statement Make the questions start a discussion, by talking about why, rather than yes/no.

#### Questions-Results1-First prompt

Topic: Help ask questions about what to say to poor people in my clinic to get them to eat more healthfully. These people have been diagnosed with Crohn's disease. I am a clinician with little experience. Make the questions simple to ask and easy to understand. Make the questions fewer than 15 words. Make the questions fun and easy for the person. Make the questions easy for the person to understand, appropriate for a 12-year-old.

#### Questions- Results 2- Second prompt (after revision)

Topic: Help ask questions about what to say to poor people in my clinic to get them to eat more healthfully. These people have been diagnosed with Crohn's disease. I am a clinician with little experience. Make the questions simple to ask and easy to understand. Make the questions fewer than 15 words. Make the questions fun and easy for the person. Make the questions easy for the person to understand, appropriate for a 12-year-old.

The output from the Idea Coach appears within 15 seconds of the request and comprises 15 questions. The process appears in Figure 1. Panel A shows the request for the four questions. It is at this stage that many novices 'freeze' as emphasized above. The objective is to get past this stage.

Panel B shows the 'squib' in the box provided for the user. The objective is to have the user provide details to prompt the AI, doing so in such a way that the questions which emerge do so in the proper form. There is no pre-defined proper form for the questions. Here we want the questions to be those which engage in a conversation, not just provide a list.

Panel C presents the first part of the set of 15 questions generated by the AI. There is no 'right or wrong'. The users can easily copy 1-4 questions into the study, edit the questions thus copied

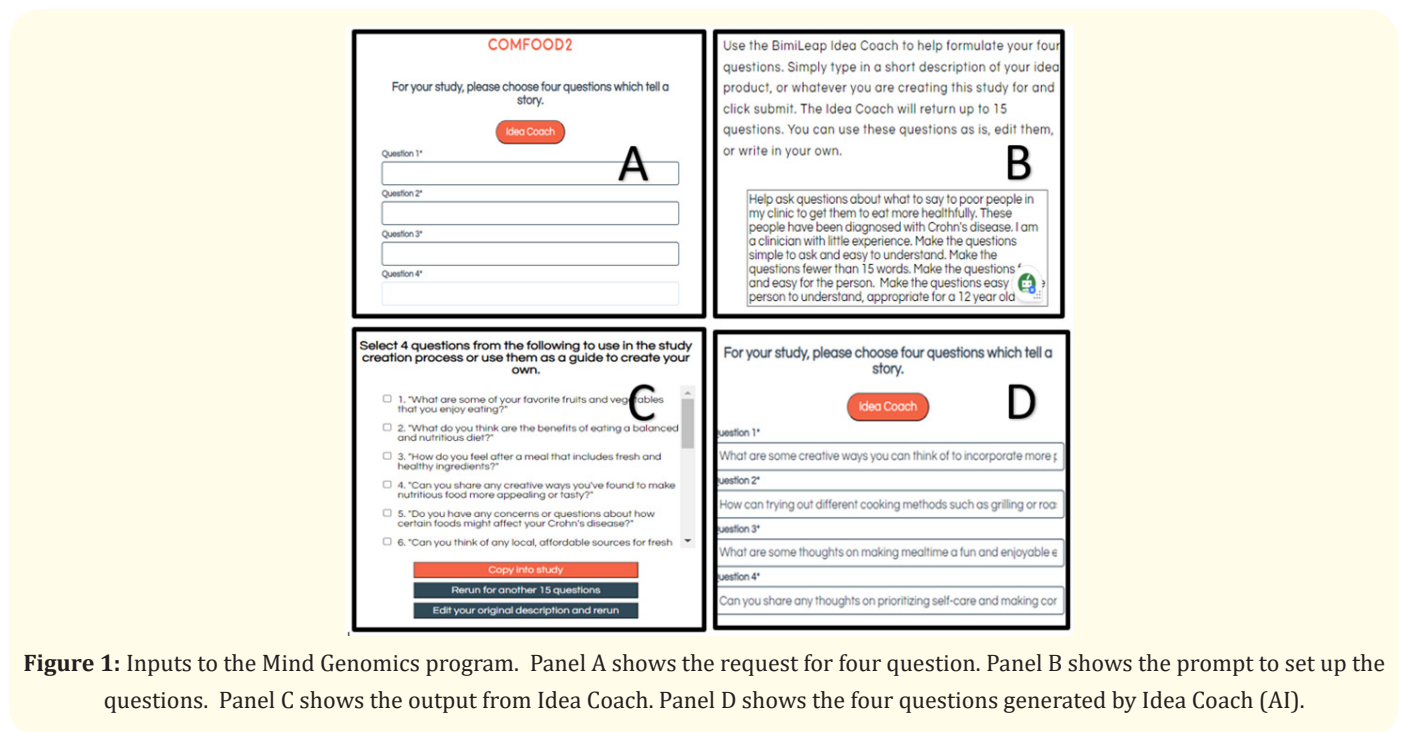
so that they are in the right form, and then repeat the request for 15 new questions, or edit the description and rerun. There is no real limit to the iterations, although by the time the user has done six or more iterations, the user has obtained an education in the nature of the concepts, especially for those situations where the user interacts by editing the questions that are selected or editing the squib.

Finally, Panel D presents the final set of four questions.

In the early phases of the effort the user could rerun the Chat GPT until four questions were selected. The ability to edit the squib

and the questions were put in soon afterwards, as the developers realized that the user often ended up editing the questions and ended up wanting to change the squib. By allowing the user to stay in the system, and actively edit the prompt in the squib, as well as editing questions selected, the system became increasingly valuable.

What became increasingly clear with use is the value of recording all iterations of 15 questions. At the first these non-used questions were simply erased under the assumption that the elements were simply rejected with little value.



**Figure 1:** Inputs to the Mind Genomics program. Panel A shows the request for four question. Panel B shows the prompt to set up the questions. Panel C shows the output from Idea Coach. Panel D shows the four questions generated by Idea Coach (AI).

**The results for the first two iterations of questions**

The 15 questions emerging from the first iteration appear in table 1. it is important to note that it took about 10-15 seconds for the questions to appear. The reality is that it takes longer to create the prompt in the correct form than to obtain the 15 questions. The 15 questions for this first iteration end up requiring simple answers. Although these are valid questions, experience shows that they do not lead to deeper thinking. The questions are superficial.

Table 2 presents the results from the second iteration. As note above, the prompt has been slightly changed. The following phrase

was put in to emphasize the user's desire to generate questions leading to a conversation, and thus to enable critical thinking: Make the questions start a discussion, by talking about why, rather than yes/no. The revised set of 15 questions move more towards critical thinking, although not all of them.

In the actual project, the user may select questions, and edit them before incorporating the questions into the study. Thus, the question 'What are some of your favorite fruits or vegetables that you enjoy eating?' could be revised to 'Explain the common aspects of your favorite fruits or vegetables, and what is it about these aspects that you like.'

Questions - Results 1 (Iteration 1)
<p><b>Prompt: Help ask questions about what to say to poor people in my clinic to get them to eat more healthfully. These people have been diagnosed with Crohn's disease. I am a clinician with little experience. Make the questions simple to ask and easy to understand. Make the questions fewer than 15 words. Make the questions fun and easy for the person. Make the questions easy for the person to understand, appropriate for a 12-year-old</b></p> <p>Topic Questions:</p> <p>"Do you know which fruits are good for your tummy?"</p> <p>"What colorful vegetables do you enjoy eating?"</p> <p>"Have you tried any fun and tasty recipes that are gentle on your gut?"</p> <p>"Which whole grains make you feel energized and satisfied?"</p> <p>"Can you tell me your favorite sources of lean protein?"</p> <p>"Do you have any interesting ways to include probiotic-rich foods in your diet?"</p> <p>"Would you like to create a special smoothie with Crohn's-friendly ingredients?"</p> <p>"Have you discovered any delicious low-fiber snacks that keep your stomach happy?"</p> <p>"Do you know any tricks to make drinking enough water more enjoyable?"</p> <p>"What spices or herbs do you like using to add flavor to your meals?"</p> <p>"Can you think of any creative ways to include healthy fats in your diet?"</p> <p>"Do you have any favorite easy-to-digest soups or broths?"</p> <p>"Have you tried any exciting non-dairy alternatives for your calcium needs?"</p> <p>"What strategies do you have for managing stress while eating healthfully?"</p> <p>"Would you like to share any tasty, Crohn's-friendly meal ideas with us?"</p>

**Table 1:** The 15 questions emerging from the first prompt regarding eating healthfully with a diagnosis of Crohn's disease.

**AI summarization and expansion of questions**

When the user has finished the creation of questions (and answers), the Idea Coach program embedded in Mind Genomics works in the background to summarize each set of 15 questions presented to the user. Each set of 15 questions is treated as a complete grouping of ideas. Table 3 shows the Idea Coach output in the 'Question Book' for the second iteration. The Idea Coach program summarizes the set of 15 questions on eight AI prompts, providing a summarization of information emerging from the questions.

- Key Ideas
- Themes
- Perspectives
- What is Missing
- Alternative Viewpoints
- Interested Audiences
- Opposing Audiences
- Innovations

It should be kept in mind that the summarization of the 15 questions is limited to those particular questions, along with the information that Chat GPT3.5 can extract, dealing with the questions. The information is generally couched in terms of slight extensions of, and immediate answers to the questions. In this way the question book, comprising eight analyses for each iteration of questions, turns into a resource book to help the user formulate the questions. Once again, it is worth emphasizing the automated nature of the process. Once the user has formulated the squib for Idea Coach, it is a simple effort to generate a set of 15 questions every 15-20 seconds. In 10 minutes, the user will generate 30 or so pages, with each page analyzed separately using the eight AI prompts.

To summarize this first part. During the set-up of the Mind Genomics experiment, the user first complete the creation of questions, either by the user's own questions, selection of questions from Idea Coach, or the combination of the two, viz., selection of

**Questions - Results 2 (Iteration 2)**

**Revised Prompt: Help ask questions about what to say to poor people in my clinic to get them to eat more healthfully. These people have been diagnosed with Crohn's disease. I am a clinician with little experience. *Make the questions start a discussion, by talking about why, rather than yes/no. Make the questions simple to ask and easy to understand. Make the questions fewer than 15 words. Make the questions fun and easy for the person. Make the questions easy for the person to understand, appropriate for a 12-year-old.***

Topic Questions:

- What are some of your favorite fruits or vegetables that you enjoy eating?
- Can you tell me why adding more fiber to your meals can be helpful for your body?
- Have you ever tried experimenting with different herbs or spices to make your meals more flavorful and enjoyable?
- How do you think including more whole grains in your diet can benefit your overall health?
- What are some creative ways you can think of to incorporate more protein into your meals?
- Have you heard of the concept of "eating the rainbow" with fruits and vegetables? How do you think that can benefit your body?
- If you had to pick one favorite healthy snack, what would it be and why?
- How can trying out different cooking methods such as grilling or roasting make your meals more interesting?
- Do you know any affordable sources of lean protein that can be added to your meals?
- What are some thoughts on making mealtime a fun and enjoyable experience for your whole family?
- Have you ever considered preparing meals in advance to save time and ensure healthier choices throughout the week? Why do you think that might be helpful?
- Can you think of any simple and budget-friendly tips for reducing added sugars in your meals?
- How do you think cooking meals at home can be a better option for your health compared to eating out?
- What are some nutritious and delicious snack ideas that can help you satisfy cravings without compromising on your health goals?
- Can you share any thoughts on prioritizing self-care and making conscious food choices for your well-being?

**Table 2:** The 15 questions emerging from the second, revised prompt regarding eating healthfully with a diagnosis of Crohn's disease. The prompt drove the questions to encourage critical thinking.

the question from Idea Coach followed by editing. The four questions are shown in Figure 1, Panel number. Keep in mind that several iterations may have been done to create the four questions, and that each iteration generates a separate.

**Creating sets of 15 answers to each question, and then AI summarization of each answer set**

The Mind Genomics process moves immediately to the creation or selection of answers to each question. The process is parallel to that of reading the questions. That is, for each question the Idea Coach uses the text of the question as a prompt, and then returns 15 answers to that particular question. It is important that the questions be written in such a fashion as to have the AI in Idea Coach return with a meaningful statement, a word picture which can stand alone.

Table 4 shows one iteration to the question "Can you share any thoughts on prioritizing self-care and making conscious food choices for your well-being." This question is an edited version of a question suggested by Idea Coach. The editing is done to encourage meaningful answers which can stand alone together with other answers in the final study that the survey-takers will evaluate.

Once again each iteration generates the 15 answers, the user is able to select up to four answers, edit them, and put them into the Mind Genomics answer template. The process parallels that followed with the questions, only this time the process is longer because there are four questions to answer, each requiring the four answers.

Finally, after the four questions have each been provided with four answers, the user moves to the next section of the set-up.

Questions- Results 3- Idea Coach Summarization on Eight AI Prompts

**Topic:** Help ask questions about what to say to poor people in my clinic to get them to eat more healthfully. These people have been diagnosed with Crohn's disease. I am a clinician with little experience. *Make the questions start a discussion, by talking about why, rather than yes/no. Make the questions simple to ask and easy to understand. Make the questions fewer than 15 words. Make the questions fun and easy for the person. Make the questions easy for the person to understand, appropriate for a 12-year-old.*

Key Ideas

- Favorite fruits and vegetables for personal enjoyment
- Benefits of adding more fiber to meals
- Experimenting with herbs and spices for flavor
- Health benefits of including whole grains in diet
- Creative ways to incorporate more protein into meals
- Benefits of "eating the rainbow" with fruits and vegetables
- Favorite healthy snack and reasons why
- Making meals more interesting with different cooking methods
- Affordable sources of lean protein
- Making mealtime enjoyable for the whole family
- Preparing meals in advance for time-saving and healthier choices
- Tips for reducing added sugars in meals
- Health benefits of cooking meals at home compared to eating out
- Nutritious snack ideas that satisfy cravings and align with health goals
- Prioritizing self-care and mindful food choices for well-being.

Themes

Nutrition and Health:

- Benefits of adding more fiber to meals
- Health benefits of including whole grains in diet
- Benefits of "eating the rainbow" with fruits and vegetables
- Tips for reducing added sugars in meals
- Health benefits of cooking meals at home compared to eating out

Variety and Flavor:

- Experimenting with herbs and spices for flavor
- Making meals more interesting with different cooking methods
- Nutritious snack ideas that satisfy cravings and align with health goals

Protein Sources:

- Creative ways to incorporate more protein into meals
- Affordable sources of lean protein

Meal Planning and Timesaving:

- Preparing meals in advance for time-saving and healthier choices

Enjoyment and Family:

- Favorite fruits and vegetables for personal enjoyment
- Making mealtime enjoyable for the whole family

Self-Care and Mindfulness:

- Favorite healthy snack and reasons why
- Prioritizing self-care and mindful food choices for well-being.

Perspectives

Nutrition and Health:

Plus: Promotes a healthy lifestyle and educates individuals on the importance of nutrition.

Minus: Can be repetitive if the same information is reiterated.

Interesting: Provides practical tips and insights for individuals looking to improve their health through nutrition.

Variety and Flavor:

Plus: Encourages individuals to explore new flavors and cooking methods.

Minus: May require additional time and effort to experiment with different ingredients and techniques.  
 Interesting: Provides opportunities to discover unique and delicious recipes that may not have been considered before.

Protein Sources:

Plus: Helps individuals find alternative protein sources, especially for those with dietary restrictions or preferences.

Minus: The emphasis on protein may overshadow other important nutrients.

Interesting: Allows for creativity in meal planning by incorporating a variety of protein sources.

Meal Planning and Timesaving:

Plus: Helps individuals save time and make healthier choices by prepping meals in advance.

Minus: Requires initial organization and planning.

Interesting: Provides an opportunity to try new recipes and discover new favorites.

Enjoyment and Family:

Plus: Emphasizes the importance of enjoying meals and creating a positive atmosphere at the dinner table.

Minus: May not be applicable to individuals who live alone or do not have regular family meals.

Interesting: Offers suggestions for engaging activities and conversation starters during mealtime.

Self-Care and Mindfulness:

Plus: Promotes self-care and mindful eating habits for overall well-being.

Minus: Can be seen as subjective and may not resonate with everyone.

Interesting: Offers insights into personal preferences and the reasons behind healthy snacking choices.

What is missing

How can portion control play a role in maintaining a healthy diet?

What are some strategies for meal planning and grocery shopping to support a nutritious diet?

What are the potential health benefits of consuming a variety of fruits and vegetables?

How can hydration and drinking enough water contribute to overall health and wellness?

Alternative Viewpoints

What are some of your least favorite fruits or vegetables that you do not enjoy eating?

Can you tell me why adding more protein to your meals can be helpful for your body?

Have you ever tried sticking to a specific diet or eating plan that restricts certain food groups?

How do you think including more processed foods in your diet can impact your overall health?

What are some creative ways you can think of to incorporate more carbohydrates into your meals?

Have you heard of the concept of "eating the rainbow" with fruits and vegetables? How do you think that can impact your body?

If you had to pick one favorite indulgent snack, what would it be and why?

How can trying out different cooking methods such as deep frying or baking make your meals more interesting?

Do you know any affordable sources of fatty proteins that can be added to your meals?

What are some thoughts on making mealtime a quick and efficient experience for your whole family?

Have you ever considered using meal delivery services or ordering takeout to save time and ensure convenience throughout the week?

Why do you think that might be helpful?

Can you think of any simple and budget-friendly tips for adding more sugars to your meals?

How do you think eating out can provide a wider variety of food options compared to cooking meals at home?

What are some indulgent and satisfying snack ideas that can fulfill cravings while still maintaining a healthy lifestyle?

Can you share any thoughts on prioritizing convenience and making easy food choices for your well-being?

Interested Audiences

Health-conscious individuals: These questions focus on the benefits of various healthy food choices and techniques, making them suitable for individuals seeking to improve their overall well-being and nutrition.

Parents: The questions include tips on making mealtime enjoyable for the whole family and incorporating healthier options, making them relevant for parents who want to encourage their children to eat well.

Home cooks: The questions touch upon different cooking methods, incorporating flavors, and creative ways to include protein, which can be appealing to individuals who enjoy experimenting in the kitchen.

Fitness enthusiasts: The questions discuss the importance of whole grains, lean protein sources, and reducing added sugars, making them relevant to those prioritizing their fitness goals and looking for ways to improve their nutrition.

Individuals seeking weight management: The questions provide insights into making healthier food choices, incorporating fiber-rich foods, and satisfying cravings with nutritious snacks, making them suitable for individuals aiming to manage their weight.

People interested in self-care and holistic wellness: The questions address the importance of conscious food choices, incorporating self-care, and prioritizing overall well-being, making them relevant to individuals seeking a holistic approach to their health.



Overall, these questions target a wide range of individuals who are interested in improving their nutrition, well-being, and overall health.

Opposing Audiences

Fast food chains or restaurants might oppose the topic of cooking meals at home as it may decrease their business and revenue. People who have busy schedules or work long hours may oppose the concept of preparing meals in advance as it requires extra time and effort for planning and cooking. Individuals who rely on convenience foods or ready-to-eat meals may oppose the idea of incorporating more whole grains and adding fiber to their diet, as it may require them to change their purchasing and eating habits. Some individuals may oppose the concept of reducing added sugars in meals, especially those with a sweet tooth or who are accustomed to consuming high amounts of sugar in their diet.

People who are not particularly fond of fruits and vegetables may not value the concept of "eating the rainbow" and may not see the benefits of incorporating a variety of colorful produce into their diet.

Individuals who follow strict dietary restrictions or have medical conditions that require specific eating plans may have opposing views on mealtimes being a fun and enjoyable experience, as they might see it as a time of restriction or limitation.

Innovations

New or innovative products, services, experiences, or policies that the themes suggest:

Nutrition and Health:

Meal delivery services that focus on providing balanced and nutritious meals with a variety of fiber-rich ingredients.

Food labeling policies that require clearer information on added sugars in packaged foods.

Smartphone applications or online platforms that provide personalized meal plans and nutrition recommendations based on individual health goals.

Innovative food products like whole grain snacks or fiber-rich pasta alternatives.

Variety and Flavor:

Subscription boxes that provide a monthly selection of unique herbs and spices, allowing people to try different flavors and experiment with new recipes.

Cooking workshops or online courses that teach different cooking methods and techniques to enhance flavor and variety in meals.

Specialty stores or online platforms that offer a wide range of healthy and flavorful snack options, helping people satisfy cravings without compromising their health goals.

Protein Sources:

Plant-based protein alternatives like pea protein-based meat substitutes or lentil-based pastas.

Grocery stores or online platforms that offer a variety of affordable, sustainable, and ethically sourced lean protein options.

Meal kits that specifically focus on providing high-protein recipes and ingredients, making it easier for individuals to increase their protein intake.

Meal Planning and Time-Saving:

Meal planning apps or websites that create customized meal plans based on dietary preferences, health goals, and time constraints.

Healthy meal delivery services that provide pre-made meals or meal kits, specifically designed for time-saving and healthier choices.

Smart kitchen appliances or gadgets that automate meal preparation and cooking, reducing the time needed for meal planning and making healthier meals more accessible.

Enjoyment and Family:

Wellness retreats or resorts that offer cooking classes and workshops for families, emphasizing the importance of nutritious and enjoyable meals.

Online communities or social platforms that connect individuals with similar interests in healthy eating and provide a space for sharing favorite recipes, tips, and experiences.

Food festivals or events that celebrate local and seasonal produce, promoting family-friendly activities and education on healthy food choices.

Self-Care and Mindfulness:

Mindful eating apps or software that provide guidance and reminders for individuals to engage in a mindful approach towards eating, promoting overall well-being.

Wellness retreats or programs that combine yoga, meditation, and healthy eating practices to encourage self-care and mindfulness.

Policies or regulations that promote mindfulness and self-care in schools or workplaces, ensuring access to healthier food options and environments that support well-being.

**Table 3:** Idea Coach Summarization of the 15 questions in Table 8 on eight AI prompts.

The Idea Coach now has one page of 15 answers for each iteration. There are at least four such pages, one for each question, but quite often each question turns out to require between two and perhaps three or four iterations. At the end, each iteration generates the summarizer page, shown in table 2 for the question.

**Can you share any thoughts on prioritizing self-care and making conscious food choices for your well-being?**

- Once again we see in Table 3 an extensive analysis of the answers to the single question. The AI works only on the text present in the answers.
- Note that these answers, if chosen and put into the actual study, might themselves require slight editing to give them a context.

**Answers Results 5**

**Question: Can you share any thoughts on prioritizing self-care and making conscious food choices for your well-being?**

**Answers**

Prioritizing self-care means recognizing that your well-being is essential and should be nurtured consistently. Making conscious food choices involves being deliberate with what you eat, considering its impact on your health and overall well-being.

Prioritizing self-care and conscious food choices go hand in hand, as what you eat directly affects your physical and mental health. Taking care of yourself means ensuring that you fuel your body with nutrient-rich foods that provide the energy and nutrients you need to thrive.

Being mindful of your food choices allows you to feel more in control of your well-being and promotes a healthier relationship with food.

Self-care includes giving yourself permission to indulge occasionally, but making conscious choices helps you strike a balance between treating yourself and maintaining good health.

Prioritizing self-care and making conscious food choices is an act of self-respect and self-love. By focusing on self-care and conscious food choices, you are investing in your long-term health and happiness.

Making intentional food choices can enhance your overall mood, energy levels, and mental clarity. Prioritizing self-care means dedicating time and effort to meal planning, cooking, and preparing nourishing meals that align with your needs and preferences.

Making conscious food choices also involves being aware of portion sizes and listening to your body's hunger and fullness cues. Self-care and conscious food choices can help prevent and manage chronic health conditions, such as heart disease, diabetes, and obesity.

Investing in self-care allows you to better manage stress and promote a healthier work-life balance, resulting in improved overall well-being.

Conscious food choices can also have positive effects on your sleep patterns, digestion, and overall gut health. Prioritizing self-care and making conscious food choices ultimately empowers you to take control of your own health and well-being, leading to a happier and more fulfilled life.

**Key Ideas**

Prioritizing self-care means recognizing the importance of nurturing one's well-being consistently. Making conscious food choices involves considering the impact of what one eats on their health and overall well-being. Prioritizing self-care and conscious food choices are interconnected, as what one eats directly affects their physical and mental health. Taking care of oneself involves fueling the body with nutrient-rich foods that provide necessary energy and nutrients. Being mindful of food choices allows for a healthier relationship with food and a sense of control over overall well-being. Self-care includes indulging occasionally, but conscious choices help maintain a balance between treating oneself and maintaining good health.

Prioritizing self-care and conscious food choices demonstrate self-respect and self-love. Focusing on self-care and conscious food choices is an investment in long-term health and happiness. Intentional food choices can positively impact mood, energy levels, and mental clarity. Self-care involves devoting time and effort to meal planning, cooking, and preparing nourishing meals aligned with individual needs and preferences.

Conscious food choices involve awareness of portion sizes and listening to hunger and fullness cues. Self-care and conscious food choices can help prevent and manage chronic health conditions. Investing in self-care helps manage stress and promotes a healthier work-life balance, leading to improved overall well-being. Conscious food choices can positively affect sleep patterns, digestion, and gut health. Prioritizing self-care and conscious food choices empower individuals to take control of their own health and well-being, fostering a happier and more fulfilled life.

Perspectives

Topic Statement 1:

Plus: Recognizes the importance of self-care and emphasizes its consistency.

Minus: Can be seen as self-indulgent or selfish by some.

Interesting: Explores the idea of nurturing one's well-being.

Topic Statement 2:

Plus: Encourages deliberate food choices for better health and well-being.

Minus: Can be restrictive and limit food options.

Interesting: Considers the impact of food on overall well-being.

Topic Statement 3:

Plus: Highlights the direct relationship between food choices and physical/mental health.

Minus: Can oversimplify the complexities of health and well-being.

Interesting: Shows the interconnectedness of self-care and food choices.

Topic Statement 4:

Plus: Promotes the importance of nutrient-rich foods for thriving.

Minus: May overlook the importance of other aspects of self-care.

Interesting: Emphasizes the role of food in energy and nutrients.

Topic Statement 5:

Plus: Advocates for mindfulness and control in relation to food choices.

Minus: Can be challenging to maintain consistently.

Interesting: Suggests a healthier relationship with food.

Topic Statement 6:

Plus: Allows for occasional indulgence while promoting overall health.

Minus: Can be difficult to find a balance between treating oneself and maintaining good health.

Interesting: Explores the idea of self-respect and self-love in relation to self-care.

Topic Statement 7:

Plus: Frames self-care and food choices as an act of self-love.

Minus: May not address the systemic barriers to self-care and healthy food choices.

Interesting: Links self-respect and self-love to self-care and conscious food choices.

Topic Statement 8:

Plus: Highlights the long-term benefits of self-care and conscious food choices.

Minus: Requires sustained effort and dedication.

Interesting: Connects self-care and conscious food choices to long-term happiness.

Topic Statement 9:

Plus: Suggests that intentional food choices can have a positive impact on mood, energy, and mental clarity.

Minus: May overlook the effects of other lifestyle factors on mood and mental health.

Interesting: Explores the connection between food and mood.

Topic Statement 10:

Plus: Recognizes the effort and time required for meal planning and preparation.

Minus: Can be time-consuming and challenging for those with busy schedules.

Interesting: Considers the alignment of food choices with needs and preferences.

Topic Statement 11:

Plus: Advocates for being mindful of portion sizes and hunger cues.

Minus: May not address emotional eating or food-related disorders.

Interesting: Considers listening to the body's cues in relation to food choices.

Topic Statement 12:

Plus: Highlights the preventive and management benefits of self-care and conscious food choices.

Minus: May not address the role of genetics or other factors in chronic health conditions.

Interesting: Shows the potential impact of self-care and food choices on chronic diseases.

Topic Statement 13:

Plus: Emphasizes stress management and work-life balance through self-care.

Minus: May not address other sources of stress or work-related challenges.

Interesting: Considers the connection between self-care and work-life balance.

Topic Statement 14:

Plus: Considers the impact of conscious food choices on sleep patterns, digestion, and gut health.

Minus: May not account for other factors affecting sleep, digestion, and gut health.

Interesting: Explores the influence of food choices on bodily functions.

Topic Statement 15:

Plus: Empowers individuals to take control of their health and well-being.

Minus: Can place a significant burden on individuals to be solely responsible for their health.

Interesting: Links self-care and conscious food choices to leading a fulfilled life.

Additional information

One missing aspect is the importance of regular exercise and physical activity in conjunction with self-care and conscious food choices for overall well-being.

The significance of maintaining a balanced and varied diet that includes a range of nutrients and food groups.

The impact of stress and emotional well-being on self-care and food choices, and the importance of managing stress levels.

The role of social support and community engagement in promoting self-care and conscious food choices.

The benefits of mindfulness and mindful eating practices in fostering a healthier relationship with food.

Alternative Viewpoints

Prioritizing self-care may be seen as selfish by some individuals who believe that taking care of others should always come first.

Some people may argue that conscious food choices are unnecessary and that enjoying food without restrictions is a more fulfilling way to live.

There may be individuals who believe that self-care and conscious food choices are indulgent practices that only benefit those with privilege and disposable income.

Some individuals may argue that focusing on self-care and conscious food choices is time-consuming and not practical for those with busy lifestyles or limited resources.

There may be people who believe that self-care should focus solely on mental and emotional well-being, rather than physical health or dietary choices.

Others may argue that self-care and conscious food choices are a personal responsibility and should not be promoted as a societal expectation.

There may be individuals who believe that self-care should prioritize external appearances and aesthetics, rather than overall well-being or nourishment.

Some may argue that conscious food choices can be restrictive and lead to an unhealthy relationship with food, potentially triggering disordered eating behaviors.

There may be individuals who believe that self-care should prioritize productivity and achievement, rather than focusing on personal well-being or nutrition.

Others may argue that self-care and conscious food choices are a luxury that not everyone can afford or have access to.

Interested Audiences

Individuals who prioritize their physical and mental well-being: These individuals are likely to be interested in the topic statements as they emphasize the importance of self-care and conscious food choices as essential components of overall health and happiness.

Health and wellness enthusiasts: This audience is interested in seeking out information and strategies to improve their well-being, making them likely to be interested in the benefits of self-care and conscious food choices.

Individuals with chronic health conditions: People with conditions such as heart disease, diabetes, and obesity may be interested in how self-care and conscious food choices can help prevent and manage these conditions.

Individuals with disordered eating habits: People who struggle with their relationship with food may find the concept of conscious food choices and mindful eating appealing, as it encourages building a healthier relationship with food.

Busy professionals: This audience may find the topic statements relevant, as they address the importance of self-care and conscious food choices in maintaining a healthy work-life balance and managing stress.

Individuals interested in holistic well-being: Those who prioritize a holistic approach to well-being, encompassing physical, mental, and emotional aspects, may resonate with the topic statements that emphasize self-care and conscious food choices as integral parts of a healthy lifestyle.

Opposing Audiences

Fast Food Industry: The fast-food industry may oppose the topic statements as they promote conscious food choices and prioritize self-care. This industry profits from selling convenient, unhealthy foods that are often high in calories, saturated fats, and sugars. Encouraging individuals to make more conscious food choices could potentially impact their sales and profitability.

**Critics of the Self-Care Movement:** Some individuals may oppose the idea of prioritizing self-care, viewing it as self-indulgent or selfish. They may believe that focusing on one's well-being takes away from societal obligations and responsibilities. These critics might argue that self-care should not be a priority and that individuals should instead prioritize external demands and commitments.

**Fast-paced, Highly Stressful Work Environments:** Individuals working in high-stress jobs or industries, such as finance, may oppose the concept of prioritizing self-care and making conscious food choices. They may argue that they do not have the time or resources to devote to self-care practices or make intentional food choices due to their demanding work schedule and pressure to meet deadlines. They may see self-care as a luxury that is not feasible in their busy work lives.

**Body Image Advocates:** Some individuals who promote body positivity and acceptance may oppose the topic statements. They may argue that focusing on conscious food choices and prioritizing self-care can reinforce harmful beauty standards and perpetuate the idea that certain foods are "good" or "bad." They might advocate for a more intuitive eating approach, where individuals listen to their bodies' cues rather than consciously choosing what to eat.

**Budget-strapped Individuals:** People who struggle with financial limitations may oppose the idea of conscious food choices. They may argue that healthier food options tend to be more expensive, making it challenging for them to prioritize self-care through nutritious eating. They might perceive conscious food choices as a privilege available only to those with higher incomes.

**Innovations**

Meal planning and delivery services that cater to specific dietary needs and preferences, making it easier for individuals to make conscious food choices and prioritize self-care.

Mindful eating apps or online platforms that provide information on the nutritional content and sustainability of different food options, helping individuals make more informed decisions about what they consume.

Wellness retreats or workshops that focus on self-care and conscious food choices, offering participants the opportunity to learn new cooking techniques, practice mindfulness, and gain a deeper understanding of the connection between food and well-being.

Workplace policies that promote self-care and conscious food choices, such as providing healthy snacks, offering flexible work schedules to accommodate exercise or meal planning, or implementing wellness programs and incentives for employees.

Community gardens or urban farming initiatives that encourage individuals to grow their own food, fostering a sense of connection with nature and promoting sustainable eating habits.

Online support groups or forums where individuals can share their experiences and knowledge about self-care and conscious food choices, providing a supportive community for those looking to make positive changes in their lifestyle.

Food labeling systems that clearly indicate the nutritional value, ingredients, and environmental impact of products, making it easier for consumers to make conscious food choices.

Integrative healthcare practices that incorporate self-care and conscious food choices into treatment plans, recognizing the importance of lifestyle factors in overall health and well-being.

Mindful eating retreats or workshops that focus on the practice of mindful eating, helping individuals develop a healthier relationship with food, improve digestion, and enhance overall well-being.

Technology-based tools, such as fitness trackers or smart kitchen appliances, that provide real-time feedback on nutrition and wellness metrics, enabling individuals to make more conscious food choices and track their progress in self-care.

Policies that prioritize access to healthy food options in underserved communities, addressing food deserts and promoting equitable access to nutritious food for all.

**Table 4:** The 15 answers to the question and the AI analysis.

**Discussion and Conclusions**

With today's access to computers or cell phones, and with the enormous amount of information available on the Internet, the use of AI in the world of health and wellness cannot be overestimated. The demonstration here shows what can be accomplished in a matter of 15 minutes. It is important to keep in mind that the demonstration began with minor knowledge of Crohn's disease, but a well-structured request for questions and answers. It should be further noted that the 'well structured request' need not come from professional experience, but rather comes from knowing how

to prompt the AI engine to return the information in the correct format.

If we are to project to the future, we might see the time when students of all types use the Mind Genomics platform to guide their learning of a topic, in almost a Socratic fashion. The system provided here generates a new form of information. That new form is a structured dialogue along with deep interpretation. It is essentially in some ways like a version of the Dialogues of Plato in the age of information and AI.

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