

SparkCoach

Flor Diniello / *Impact MBA*
Sustainable Operations & Supply Chain Management

table of contents

SUSTAINABLE OPERATIONS & SUPPLY CHAIN MANAGEMENT

SparkCoach - Your AI-powered study buddy.

- 3 Outline of Customer Segment
- 4 Supply Chain Map
- 5 Target Metrics on Sustainability Performance
- 6 Circularity Strategies

APPENDIX

- 8 Survey Summary
- 9 Stakeholders map

SparkCoach[✦]

CUSTOMER SEGMENT

Busy Students and Professionals



Environmentally Conscious Users

DEMOGRAPHICS:	Age: 18-35 years
EDUCATION LEVEL:	High school, College students, graduate students, or early-career professionals seeking additional training or certification.
OCCUPATION:	Part-time workers, full-time students, or professionals balancing education with job responsibilities.
PSYCHOGRAPHICS:	<p>User Goals: To enhance productivity, manage time effectively, and achieve academic or career success without burnout.</p> <p>User Motivations: They look for personalized learning experiences that accommodate their busy lifestyles and unique learning preferences.</p> <p>Challenges: Struggling with time management, focus, information overload, maintaining mental well-being, and competing priorities.</p> <p>Values: Importance placed on self-improvement, sustainability, and a balanced lifestyle, with an interest in tools that promote efficiency and support mental health.</p>
BEHAVIORAL TRAITS:	<p>Tech-Savvy: Comfortable using digital tools, apps, and AI technologies to assist with their personal and professional tasks.</p> <p>Health-Conscious: Aware of the importance of mental health and seeking tools that support emotional well-being and stress management.</p> <p>Motivation Needs: Benefit from regular reminders, tracking of emotional and energy levels, and personalized prompts to stay engaged and focused.</p> <p>Environmental awareness: They are mindful of the importance of sustainability practices, but they are not necessarily related to digital products.</p>

BASED ON THE SURVEY RESULTS *

Importance of Environmental Sustainability

High Priority:

A majority (89.5%) consider sustainability crucial (rated 4 or 5).

Where customers want companies to actively contribute to sustainability, like carbon offsetting and resource conservation.

Socially Responsible Technology

89.5% value environmentally and socially responsible technology (rated 4 or 5).

Customers demand transparency: clear information about the environmental impact of technologies.

Desired Features in SparkCoach Tools

Resource Tracking: Interest in features that show water usage, carbon offsets, and energy consumption of the app.

Task Management: Tools that suggest study tasks based on availability and natural rhythms to optimize resource use.

Educational Content: Daily tips and short sessions on sustainability to promote eco-friendly habits.

Waste Reduction: Suggestions for reducing waste and DIY solutions to minimize purchases.

Gamification Features: Opportunities for rewards for eco-friendly actions or donations to environmental causes.

Environmental Impact Awareness:

Digital Footprint Information: Clear communication about the tool's energy and water consumption to help users make informed choices.

Regular Updates: Sharing data on sustainability efforts to keep users engaged.

(*) Survey Summary in Appendix

SUPPLY CHAIN

 Sustainability challenges identified

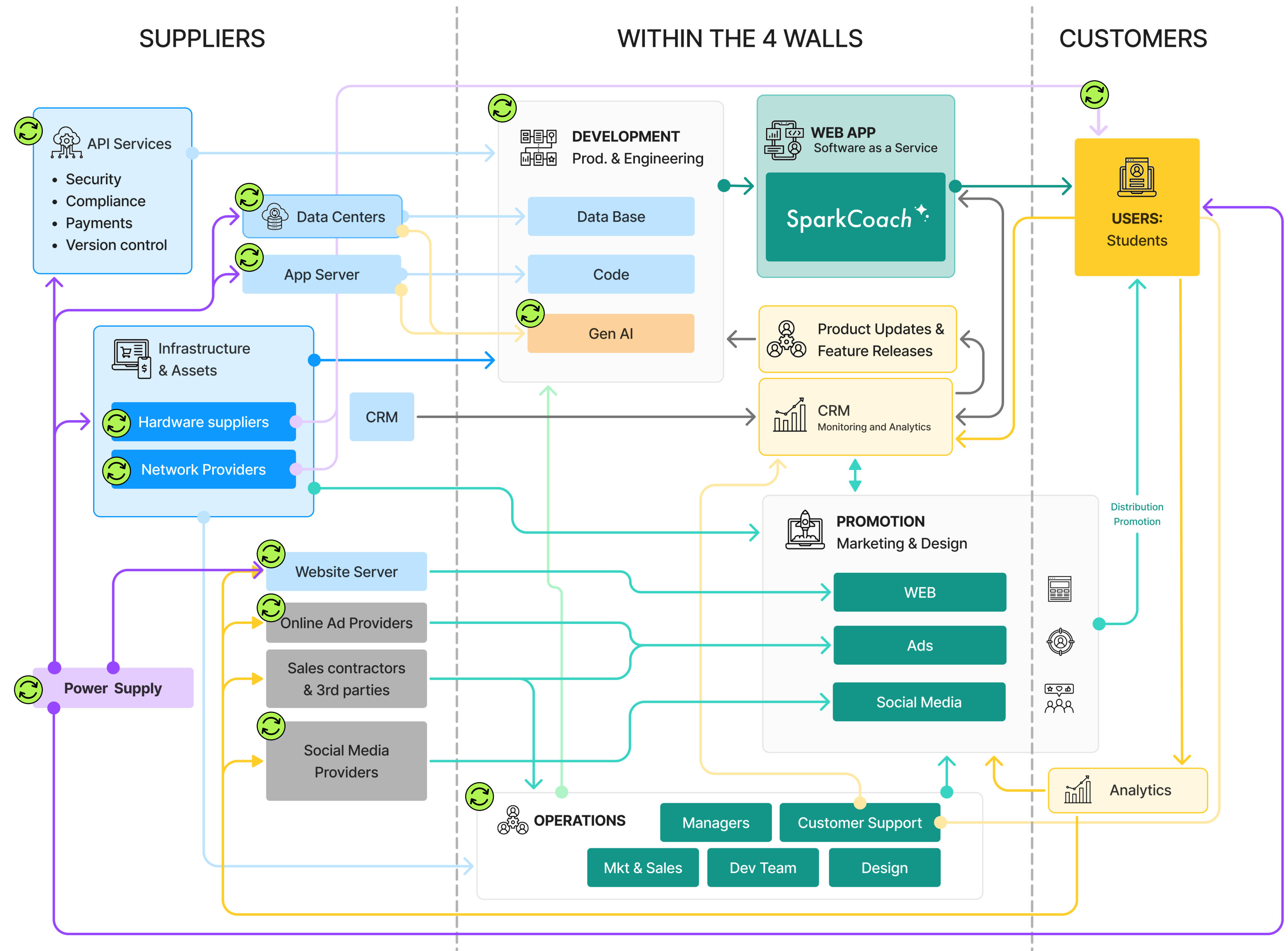
When analyzing the stakeholder map (Appendix p.9) and the supply chain, the most relevant feedback loops and sustainability issues appear when scaling up the company. Improving the effectivity is one of the main drivers to achieve the company's value proposition.

Top sustainability challenges:

Energy consumption:

This applies to all of the highlighted elements. From the usage of power supply needed to run Data Servers, AI usage and prompting App servers, to as well the development of hardware from the 3 pillars of the supply chain, and the operations of all of them.

Infrastructure and resources: hardware is necessary on all the identified items. This not only needs from the energy consumption as mentioned before to be developed, but also material sourcing. None of the 3 pillars can develop without the usage of rare materials. This leads to the final element, resulting of **e-waste**.



TARGET METRICS on Sustainability Performance

Some considerations regarding the company's foundation are already taken into account—selecting suppliers aligned with ESG is considered a must. So, the following KPIs are aligned to be part of that scenario.

Aligning to these SMART objectives supports and reinforces the brand image while following the company's ESG principles.

1.

Invest 5% of company efforts working time in developing optimization processes to achieve a reduction of 80% in internal team operations by year 2.

By year 2, reducing the teams' time to 80% can significantly reduce the impact of internal operations.

Supports well-being by achieving a work-personal life balance.

Reduces energy consumption from offices and home offices and lowers interaction with data centers and servers from the team.

Contributes to R0: refuse, narrowing the loop by reducing energy consumption.

Metrics:

- Track energy consumption (kWh)
- Team productivity across 2 years to analyze improvement:
 - time completion of projects
 - output and input productivity formula.

2.

Invest 20% of the team's total budget in User Research and Product Testing to improve and streamline user time usage and reduce it by at least 20% without losing engagement by year 1.

This aligns with the value proposition of SparkCoach and can transform into a positive feedback loop for users' engagement with the platforms. By assuring the commitment of the company into a sustainable future, also produces a positive effect with all the stakeholders.

Contributes to R1: reducing the usage of the network and the energy consumption by users.

Metrics:

- NPS score from users.
- Uptime and the number of interactions from users with the SparkCoach App.

3.

Ensure 100% of suppliers meet sustainability criteria aligned with the company by the end of year 2.

To align with SparkCoach's Mission and Value proposition, suppliers must use fewer resources, generate less waste, and, therefore, produce fewer emissions. This will also align with ESG standards that are crucial to all stakeholders and investors.

Aligning with suppliers that meet sustainability criteria also reduces the risk of unexpected environmental or social issues.

Metric:

- Evaluate and score supplier compliance.
- Evaluate risk



CIRCULARITY STRATEGIES on Sustainability Performance

R6 re-purpose R7 recycle, upcycle

Upcycling and Repurposing Code (R6 & R7)

Repurposing existing code to create new applications or features is a way of optimizing code. Reusing code saves time and resources and reduces the impact of writing entirely new code from scratch.

R7 recycle, upcycle R8 Recover energy

Responsible E-Waste Management (R7 & R8)

Considering the environmental impact of hardware disposal, the company aims to adopt sustainable practices while responsibly recycling and refurbishing electronic devices. Conversely, it's essential to generate awareness among the platform users about responsible e-waste, providing information about the topic and listing places for its correct disposal.

R3 & R4 extend lifetime

Extending Software and Development Lifespan (R3)

Creating and designing robust and adaptable software can help prolong the code's lifespan. Building scalable and flexible architecture can help the software remain relevant for longer periods, reducing the need for constant updates.

R1 reduce

Improving User Experience Journey (R1)

By improving the platform's experience, app uptime can be reduced. Fewer but richer interactions can significantly reduce emissions while still providing users with a successful experience.

R0 refuse

Collecting the necessary Data (R0)

Collecting users' data and interactions with the platform is crucial to understanding the user journey and improving the platform. Storing and managing all this data can impact the emissions produced. Optimizing and reducing the data points is a way of consuming less resources.

Appendix

The purpose of this survey is to find Customer Needs and Demands Related to their studies.

What are your primary challenges as a student?

Texto de respuesta largo

Do you currently keep track of your emotional and energy levels?

Yes

No

How do you currently manage your time and tasks?

Texto de respuesta breve

How do you feel about using AI to help you learn more efficiently?

Texto de respuesta breve

How can an AI coach help you stay motivated and focused?

Texto de respuesta largo

How important is environmental sustainability to you?

I don't really care. 1 2 3 4 5 Extremely Important.

How important is it to you that the technology you use is environmentally and socially responsible?

I don't really care. 1 2 3 4 5 Extremely Important.

What kind of features or functionalities would you like to see in a study tool that promotes sustainability?

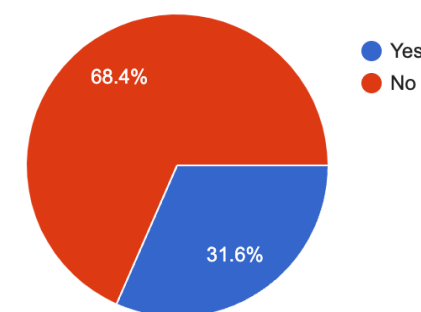
Texto de respuesta largo

Survey - Summarized answers [1]

What are your primary challenges as a student?

- Balancing Life:** It's hard to balance work, studies, health, and personal time.
- Time Management:** Effectively managing time and avoiding burnout are big concerns.
- Focus:** Staying focused and retaining information can be difficult.
- Information Overload:** Too much information makes it hard to stay organized.
- Career Development:** Gaining experience and networking is challenging with limited time and resources.
- Mental Health:** Anxiety and stress are common, and support for motivation and balance is needed.

Do you currently keep track of your emotional and energy levels?



How do you currently manage your time and tasks?

- Calendars and Apps:** Many use calendars, apps, and reminders to organize tasks.
- Task Lists:** To-do lists and prioritizing tasks are common strategies.
- Self-Care:** Some practice self-reflection and adjust schedules to stay productive.
- Challenges:** A few struggle with time management, feeling disorganized or overwhelmed.
- Minimal Planning:** Some prefer minimal structure, setting only basic study days or schedules.

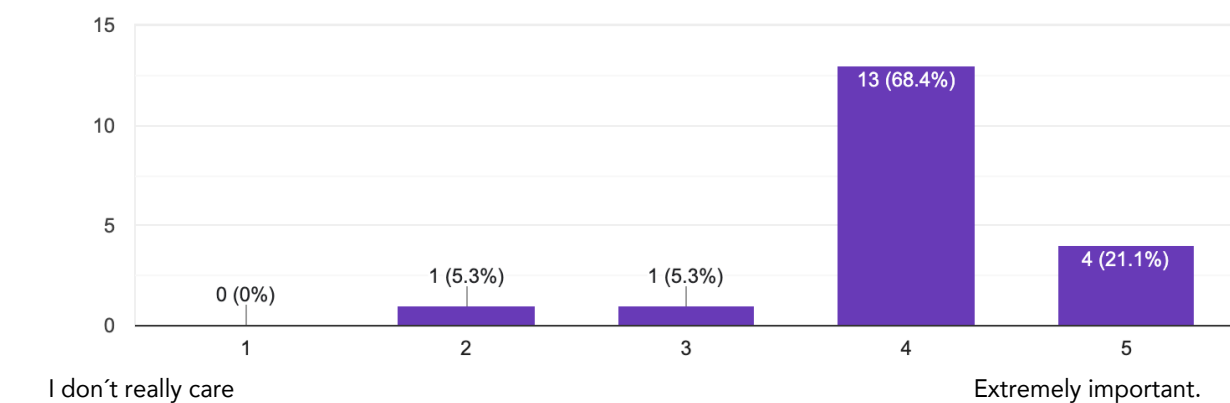
How do you feel about using AI to help you learn more efficiently?

- Mostly Positive:** Many are excited and see AI as useful for organizing tasks, summarizing, and writing help.
- Curious but Unsure:** Some want to try AI but are uncertain about how to use it best.
- Concerns:** A few worry about AI's environmental impact and the risk of becoming too dependent on it.
- Mixed Trust:** Some are comfortable using AI, while others are cautious but open to trying it.

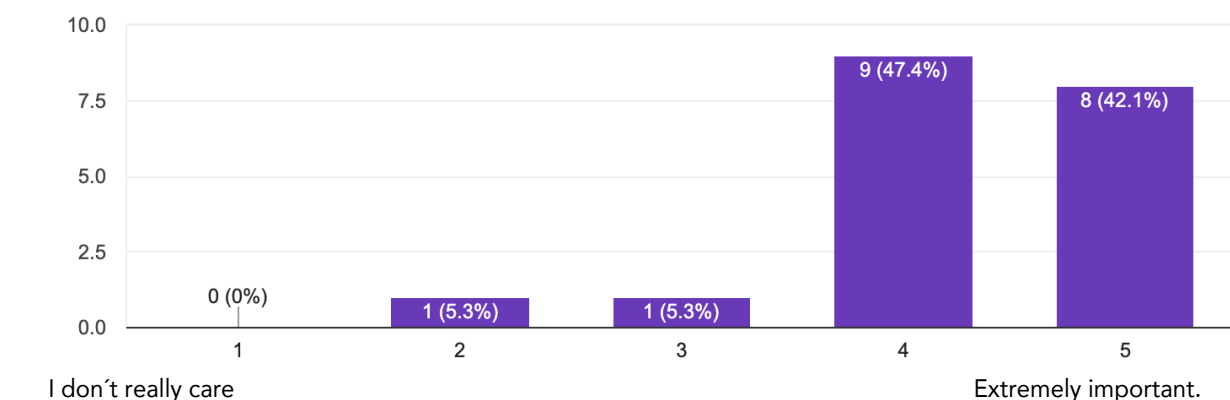
How can an AI coach help you stay motivated and focused?

- Task Management:** Breaking down tasks, setting priorities, and creating schedules.
- Reminders:** Regular reminders and tracking progress to stay on track.
- Personalized Support:** Tailored advice based on individual needs and motivations.
- Encouragement:** Providing motivation through quotes, check-ins, and summaries.
- Practical Help:** Handling small tasks, using gamification, and offering guidance.
- Mixed Opinions:** Some are unsure or skeptical about AI's impact on motivation.

How important is it to you that the technology you use is environmentally and socially responsible?



How important is environmental sustainability to you?



What kind of features or functionalities would you like to see in a study tool that promotes sustainability?

- Impact Tracking:** Show energy, water, and resource usage with clear comparisons.
- Offset Options:** Allow users to offset the tool's footprint, like through donations or tree planting.
- Eco Tips:** Offer daily sustainability tips and waste reduction advice.
- Efficient Planning:** Suggest study plans that save time and resources.
- Gamified Incentives:** Reward sustainable actions with gamified elements.
- Resource Alerts:** Notify users when simpler options can save energy.
- User-Friendly and Visual:** Make it easy to use with engaging visuals.

[1] F. Diniello, "SparkCoach - Survey", 2024, https://docs.google.com/spreadsheets/d/1-r2g4qVoz6DeyOJsYsdv6Q0XNcn_-N-sO7tU_riKseo/

Feedback Loops and interactions

