ZION & ZION

Four **Effective Optimization Strategies** for Lower-Traffic Websites

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INTRODUCTION

It is a widely held, yet incorrect, belief that website optimization programs can only proceed in high-traffic website environments.

Yes, marketers confronted with lower-traffic sites commonly opt to test high-impact changes, upper-funnel micro-conversions, and perform cross-funnel testing. However, more advanced techniques exist that can significantly expand marketers' abilities to perform testing in lower-traffic environments.

This paper covers some of the more advanced techniques that we regularly employ with clients.

Use Thematic Testing to Take Advantage of Cross-Page Activity

Thematic testing, akin to cross-funnel testing, leverages traffic across multiple pages; however, it introduces a greater complexity and demands more business insight.

While cross-funnel tests assess a single element (such as banner placement) across multiple pages, thematic tests transcend this simplicity. This approach demands comprehensive preparation to form themes that offer learning opportunities, rather than simple validation or disproof of single-element effects.

For example, consider one of our ecommerce-retailer clients. We identified that different promotional designs were creating friction in the customer journey which was negatively impacting the user experience and sales. With each promotion distinct in design, the thematic test necessitated the careful consideration of variables like font, size, location, and color across multiple UX components.

To excel in thematic testing, one must delineate the problem or theme being tackled and hypothesize potential solutions.

Loyalty program details are hidden across the site

Inconsistent display of pricing information across funnel pages

Lack of clarity about the path to checkout

FIGURE 2
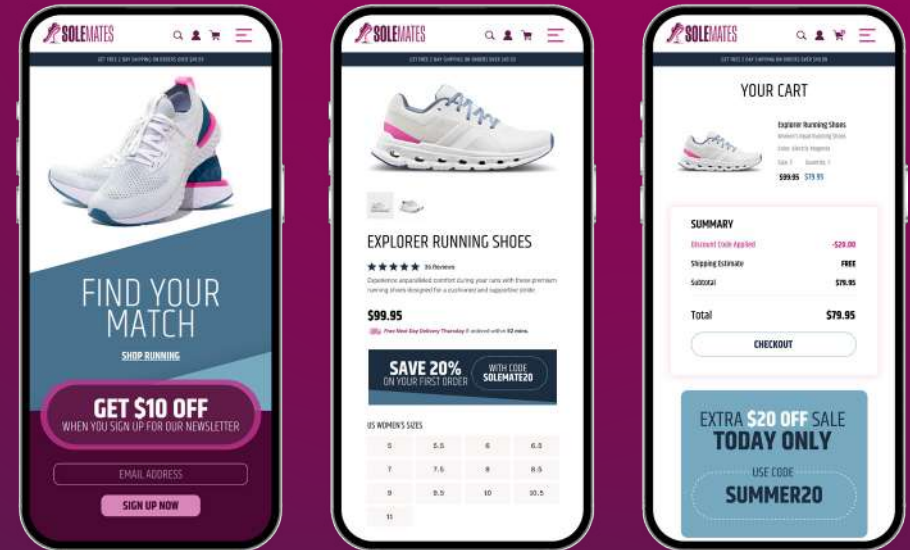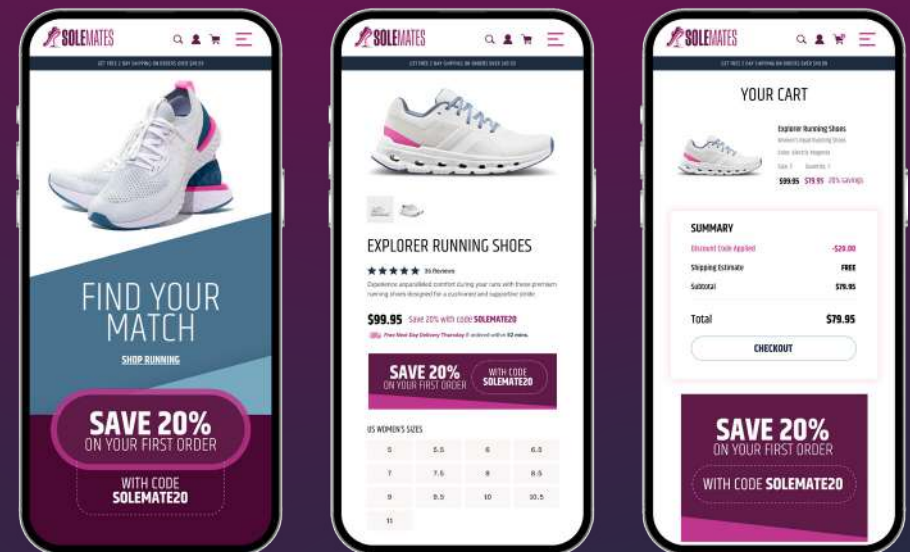**Unoptimized** promotional messaging across funnel pages

FIGURE 3
Optimized promotional messaging across funnel pages

The ecommerce UX experience shown in this Figure were designed by our EXO team for illustrative purposes

Unlike multivariate tests, thematic tests focus on grouping significant changes into themes to enhance the chances of detecting statistical improvement.

Pros of Thematic Testing

+ Significant changes across funnel pages can lead to more impactful results for lower-traffic websites

+ Businesses have the ability to explore more hypotheses at one time

+ Given the natural complexity of thematic testing, hypotheses are aligned with business and customer perspectives

Cons of Thematic Testing

− You won't know which variable caused the positive or negative change

− Bigger changes and cross-funnel tests are inherently more risky

− It can potentially take a higher level of effort than traditional A/B testing

Unleash AI-Powered User Experience Combinations

The advent of AI empowers businesses to explore diverse combinations of changes algorithmically.

This approach excels as an exploratory aid, especially when uncertainty surrounds effective changes or when the goal is to simply optimize an existing user experience with lower traffic.
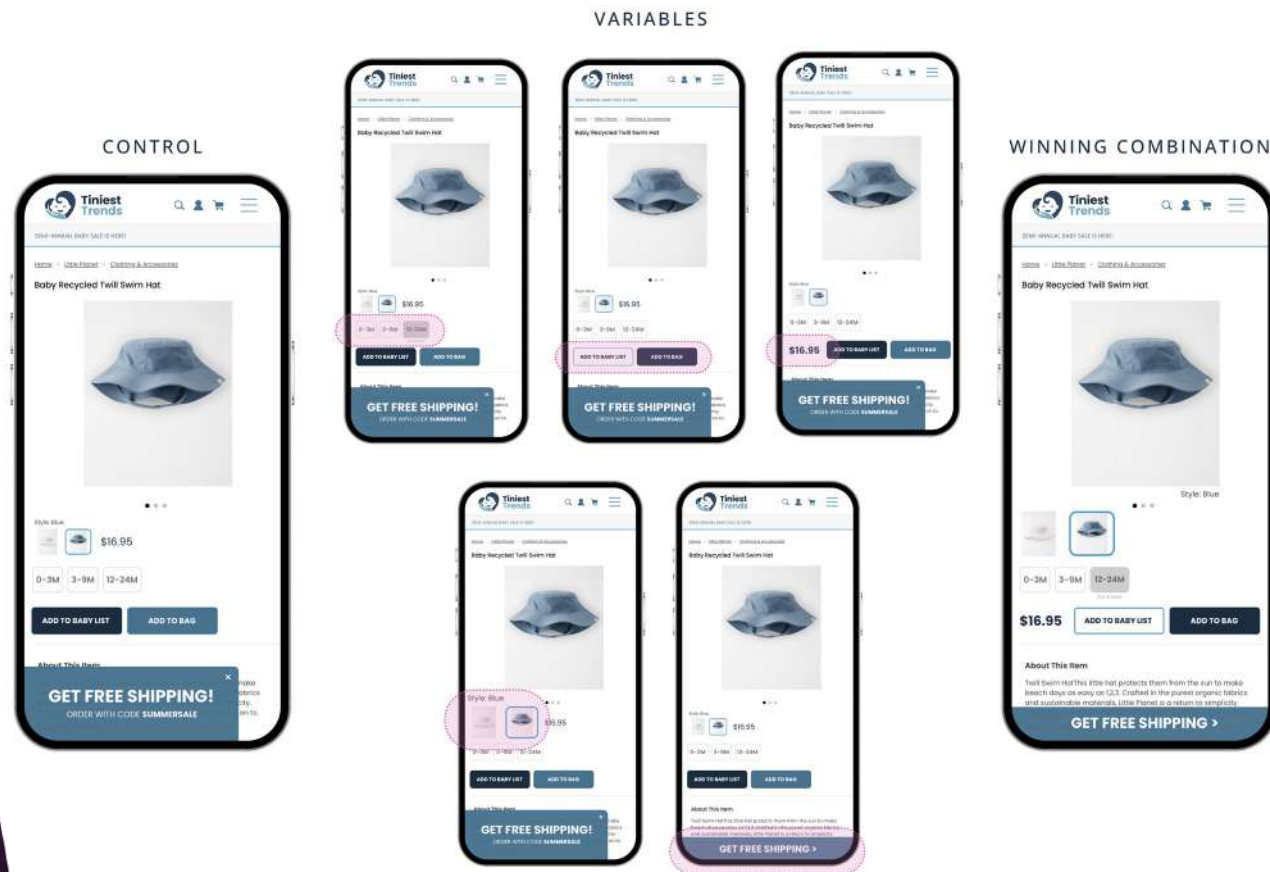
When using this approach, we feed an array of variables into a testing algorithm, which then attempts to identify optimal combinations of independent variants. This process leads to an algorithmic discovery of user experience improvements, which is more systematic and explorative than human intuition.

After running for a period of time, the algorithm can frequently detect that there is a specific combination that optimally outperforms the control and maybe a dozen others that are significant underperformers. There are many learnings to be had from this single experiment.

We will highlight five variables that our team would consider worthy of AI-driven exploration.

FIGURE 5
AI-driven exploration of 5 variables

VARIABLES	PROBLEM STATEMENT
Available size options style	The available size options and unavailable size options are indistinguishable
Add-to-Baby-List button style	The Add-to-Baby-List CTA is more prominent than the Add-to-Bag CTA
Sales pricing location	Pricing is in an unexpected location
Color option selector size	Clothing color option selectors are too small and compact for mobile users
Promotional messaging location	Promos on the left side of the window are obstructive, covering up product options

However, it's crucial to note that AI-driven testing doesn't completely bypass traffic limitations, although it allows our team to make the most of what traffic is available in some instances. When dealing with our clients' lower-traffic websites, we use these machine learning (ML) algorithms for exploration rather than hypothesis validation, thus aiding informed decision-making.

Pros of AI-Driven Testing

+ Excellent for fast and rapid exploration

+ Possible to learn from design combinations that you'd never think to test

+ Maximizes available traffic for testing, eliminates the lost traffic by stopping and starting tests via traditional experimentation

Cons of AI-Driven Testing

− Can be high-level of effort to design so many variables

− Learning the platform can be time consuming

− Algorithms are black-box

Reduce Variances with Controlled-Experiment Using Pre-Experiment Data

Controlled-Experiment Using Pre-Experiment Data (CUPED), a technique harnessing historical data, baseline measurements, and other pre-experiment information, enhances experiment efficiency and precision.

CUPED, while lesser-known, is effectively used by our EXO team and is gaining momentum within mainstream experimentation methodologies.

Companies such as Netflix, Booking.com, and Microsoft have championed this technique, driving its integration into experimentation vendor roadmaps and onto the horizons of forward-thinking consultancies.

By mitigating variability in estimates, we can reduce confidence intervals, p-values, required sample sizes, and experiment durations.

Estimated means (before CUPED)

Estimated means (after CUPED)
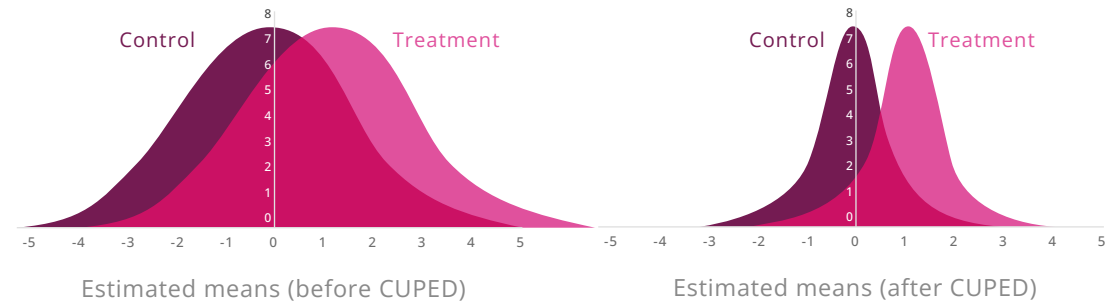
This becomes especially advantageous when working with limited sample sizes. However, reliance on reliable pre-test data and returning users, along with alignment to the experiment's north star metric, remains paramount.

Pros of CUPED Testing

➕ Can reduce the time that an experiment has to run without sacrificing precision

Cons of CUPED Testing

➖ Requires two weeks of historical data

➖ Requires high correlation between metrics

➖ Best used when websites get high levels of repeat traffic

Use Heuristic Analysis to Achieve Cost-Efficiency and Rapid Insights

Heuristics refer to shortcuts that EXO professionals use to evaluate aspects of user experience. Applied heuristics are meant to identify points of friction in the user experience.

Managing optimization efforts invariably incurs resource costs both in terms of time and technology. However, when there is lower website traffic or limited resources that can hinder A/B testing, employing heuristic analysis emerges as a cost-effective solution.

Requires elevated cognitive processing
This element forces me to slow down and think, preventing me from buying

Next best step is hidden
I should be able to see where to click next

Element location limits visibility
Important decision-making information is missing

Not optimized for scanning
Information is unorganized, and some information is irrelevant

No mental map
Information is unrecognizable and unclear

Creates decision-fatigue
There are abundant or undifferentiated options

Element's functionality is unexpected
The element is unresponsive, I cannot engage with it the way that I would expect to
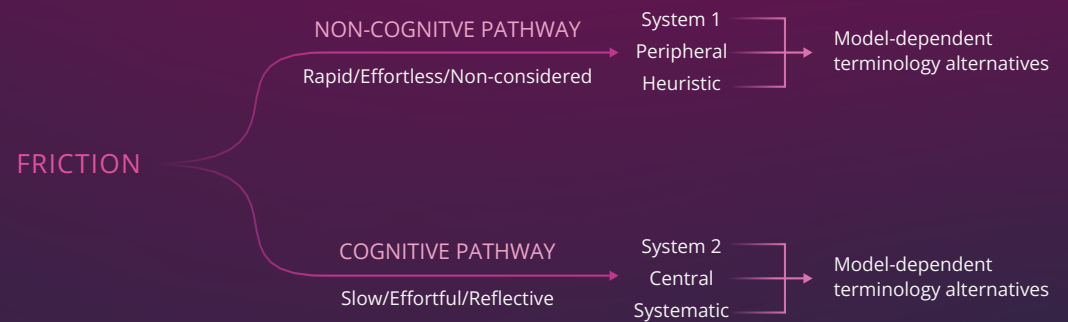
Accessibility issues
This element does not conform to AA/AAA web accessibility requirements

1 Friction can trigger cognitive responses in users where they rebel against the process of engaging further in the digital experience (e.g. completing a purchase or pursuing additional information) and/or rebel against or blame the brand because the brand should have known better.

While most people intuitively realize that friction is something we want to reduce, it is also worth noting how friction operates with respect to goals that brands want to achieve.

Friction impedes goal realization via two distinct, yet complementary pathways—the automatic pathway and the effortful pathway.

2 Friction delays the automatic responses that users might have and that a brand might benefit from.

```
                    NON-COGNITVE PATHWAY      System 1        Model-dependent
                    Rapid/Effortless/Non-considered  Peripheral   terminology alternatives
                                              Heuristic
FRICTION

                    COGNITIVE PATHWAY         System 2        Model-dependent
                    Slow/Effortful/Reflective  Central        terminology alternatives
                                              Systematic
```

1 The type of processing a user engages in (at least in part determined by how important the goal is to the user).

2 Individual differences between users with respect to their psychological predispositions.

3 The reliability of the information source and the current degree of cognitive overload for the user.

There is a long history of mental-processing research related to how these friction paths operate.

Underlying all of these models are a variety of considerations and caveats.

Understanding Dual Process Theories with Respect to User Attitudes and Behaviors

2011		1980		1986	
Daneil Kahneman		Richard Petty and John Cacioppo		Shell Chaiken	
Thinking, Fast and Slow		The Elaboration Likelihood Model (ELM)		Heuristic-Systematic Model (HSM)*	
DUAL PROCESSES		**DUAL PROCESSES**		**DUAL PROCESSES**	
System 1	System 2	Peripheral Route	Central Route	Heuristic Processing	Systematic Processing
The user makes decisions quickly, automatically, unconsciously, and potentially based on stereotypes	The user engages in slow, effortful, logical, conscious decision making	The user doesn't engage in significant mental elaboration, and instead, simply reacts with relatively little thought	The user engages in significant mental elaboration and carefully considers the information presented	The user utilizes heuristics or rules of thumb for decision making following a principle of least effort or sufficiency	The user engages in analytic and comprehensive processing of relevant information and expends significant cognitive effort in doing so

Harnessing heuristic frameworks reveals user engagement hurdles such as elevated cognitive processing, hidden next steps, and suboptimal element visibility. By tapping into users' subconscious decision-making mechanisms, these frameworks streamline the identification and resolution of UX bottlenecks.

Pros of Heuristic Analysis

+ Cost-effective strategy when you don't have the budget or traffic for A/B testing tools

+ Framework can be applied to any website that sells a product or service

+ Provides immediate insights where friction exists along the customer's journey

Cons of Heuristic Analysis

− In isolation, you can't statistically measure the impact that UX changes had on the user experience from these learnings

Overcoming Traffic Constraints for Enhanced User Experiences Is Possible

While not all websites bask in the luxury of abundant traffic for statistical A/B testing, strategies still exist to enhance user experiences. Collaborating with strategic partners proficient in experimentation and optimization methods tailored to your business and customers is a pivotal step.

With the right approach, techniques can be applied to transform experimentation from a challenge into a powerful tool for informed decision-making and user-centric growth.