



Yu Sheng Cheng, Steven Chambers, Dominique Coslett,
Erin Devereux, Kelsey Dillon, Emily English
MKTG 2301: Marketing & Society

0.0 Executive Summary	3
1.0 Background, Purpose, and Focus	4
1.1 Social Issue/Behavior to Target	4
1.2 Focus Organization & Involvement in Solving Societal Issue	
2.0 Situation Analysis	4
2.1 SWOT: Organizational Strengths & Weaknesses	4
2.2 Literature Review	5
2.3 Small Scale Survey & Interview Research	6
3.0 Target Audience Profile	9
3.1 Demographics, geographics, relevant behaviors (including risk), psychographics, social networks, community assets and stage of change (readiness to buy/change behavior)	9
3.2 Prioritize Segments	
4.0 Competition analysis and additional Factors Influencing Adoption of the Behavior	9
4.1 Perceived Barriers & Competing Behaviors/Forces	9
4.2 Potential Benefits for Targeted Behavior	10
4.3 Influence of Important Others	10
5.0 Marketing Strategy and Positioning Statement	10
5.1 Strategy That Reduces the Barriers to the Promoted Behavior While Increasing Benefits	10
5.2 Target Audience View of Targeted Behavior and Narrative	11
6.0 Marketing Objectives and Goals	12
6.1 Campaign Objectives	12
7.0 Marketing Mix Strategies (Using the 4Ps to Create, Communicate and Deliver Value for the Behavior.)	13
7.1 Product: Benefits from performing behaviors and any objects or services offered to assist adoption (social proposition)	13
7.2 Price: Costs that will be associated with adopting the behavior (social cost)	13
7.3 Place: Making access convenient (accessibility)	14
7.4 Promotion: Persuasive communications highlighting product benefits, features, fair price, and ease of access (social communication)	14
7.5 Randomized Control Trial Design	14
8.0 Plan for Monitoring & Evaluation	15
8.1 Purpose & Audience for Monitoring & Evaluation	15
8.2 What Will Be Measured	16
8.3 How & When Measures Will Be Taken	16

Executive Summary

A tutoring service that encourages students to gain insight into STEM education, Boston-based start-up company, sySTEMic flow, is a for profit organization with a sustainable business model. The COVID-19 pandemic has made it increasingly difficult for businesses to gain new customers due to new marketing barriers and declining customer touch points. sySTEMic flow has been especially affected, as their marketing before the pandemic was primarily through word of mouth, no longer a viable option. As times are changing and people shift to remote forms of communication and interaction, it is more important than ever that sySTEMic flow builds and maintains a strong online presence to serve as a critical touch point for customer engagement.

While sySTEMic flow's main target audience is young women of color, they can't neglect the students' parents/guardians who are one their support system for success. After evaluating the tutoring market, we believe that sySTEMic flow needs to increase their online presence to stand out amongst other service learning centers. To help build this presence, we will examine the factors that motivate target demographics to prioritize STEM education, and how the support of parents and their views on education plays a role.

Based on our research in the market, surveying, and interviews, we have developed a marketing strategy that will increase sySTEMic flow's digital presence. By doing so, this will create opportunities to develop personal relationships with students in the area. Partnering with Boston Public Schools will be the perfect opportunity to establish relationships that combine digital and in-person interactions. We believe that driving traffic through social features on Boston Public Schools social platforms will open doors to foster new relationships with the community.

sySTEMic flow currently has positioned themselves to be a more personalized tutoring service with a more meaningful mission directed towards young students. Their mission states, "We are dedicated to inspiring, motivating, and building the next generation of STEM leaders by supporting students' fundamental learning in math. Our programs and activities are designed to guide self-development, growth, and foster a love of learning". Since women of color face so many barriers to pursuing STEM education, we want to position sySTEMic flow as an organization that focuses on developing personal relationships with their students and helps them overcome obstacles together.

The social value proposition sySTEMic flow will provide is their offering of tutoring help for students who are interested in the STEM field. The implementation of the social advertisements may not be too costly due to the fact that most of the campaigns will be created through organic posts. Place is quite critical for sySTEMic flow to communicate with current and potential clients. Collaborating with Boston Public Schools will open up the opportunity to spread awareness with their target market on social media. This strategy will be most effective if they promote with clear and consistent messaging.

1.0 Background, Purpose, & Focus

sySTEMic flow was established in 2017 by CEO/Founder Jessica Sanon. sySTEMic flow exists to inspire and support young Girls and Women of Color who wish to attain academic degrees in the fields of Science, Technology, Engineering and Mathematics (STEM). SySTEMic flow wishes to expand their business to include more students and communities both in and outside of Massachusetts.

1.1 Social Issue/Behavior to Target

The main social issue that we are addressing is the lack of women of color in the STEM field. It can be a challenge to convince students of particular backgrounds the importance of STEM related education at an early age. The target audience tends to have a lower average income than many of the other demographics. This makes it increasingly more difficult to provide an opportunity for their children to have a better education and opportunities. Alongside this, it may be difficult for students to understand the importance and potential of STEM related education.

The behavior that we will be targeting is recruiting women of color through SEO and social media to increase their awareness and interest in STEM. From there, the mission will be to then enroll the student in a sySTEMic flow program.

1.2 Focus Organization & Involvement in Solving Societal Issue

The organization we are focusing on is called sySTEMic flow. sySTEMic flow exists to inspire and support young Girls and Women of Color who wish to attain academic degrees in the fields of Science, Technology, Engineering and Mathematics (STEM). Jessica has started this organization because she felt that there is a strong need for tutoring and encouraging service for young women of color. sySTEMic flow wishes to expand their business to include more students and communities both in and outside of Massachusetts.

2.0 Situation Analysis

2.1 SWOT: Organizational Strengths & Weaknesses

sySTEMic flow is relatively new to the educational industry and tends to focus on minorities in STEM-related subjects, mainly math. This creates strengths, weaknesses, opportunities, and threats for sySTEMic flow. In terms of strengths, they have a strong sense of direction as they focus on developing math literacy and creating a calculus curriculum designed with algebraic techniques. Additionally, they tend to be easily accessible to those that have the ability to seek them out.

However, there are several weaknesses with being a relatively new business. It may be difficult to recruit and train many of the teachers and staff of sySTEMic flow and difficult to encourage them to stay. Additionally, sySTEMic flow's name implies study in any STEM-related courses, and so finding additional tutors in every STEM course would be a difficult task. sySTEMic flow also focuses on a wide range of students and so students are at different levels of

math difficulties. Tailoring to each and every student would be a difficult task. Additionally, sySTEMic flow's name implies study in any STEM-related courses. In terms of online presence, sySTEMic flow has a little following, and is difficult to find them on search engines, such as Google, as their name is similar to the blood circulation in the human body.

There are many opportunities for sySTEMic flow. Due to its diversity, inclusion, equity efforts, and values, sySTEMic flow may have the opportunity to communicate with certain school districts to have them advocate for their services. Teachers who recommend sySTEMic flow to parents would be beneficial for sySTEMic flow due to the low online presence. sySTEMic flow may also gain additional fundings from certain organizations that focus on STEM-related courses, which would give sySTEMic flow the opportunity to hire more teachers and reduce cost for new students. Lastly, the target audience of sySTEMic flow can increase in the future. They tend to focus on minorities but may expand on this to other races. With other races, sySTEMic flow may allow collaboration which can truly turn sySTEMic flow into a diverse organization.

Lastly, there are several threats that sySTEMic flow faces. During the pandemic, many schools are closing and shutting down. If this continues, sySTEMic flow will have little potential clients and will find alternatives to finding new students. Additionally, there are many competitors, such as Kumon, the Russian School of Mathematics, etc., that are more well established and are competing for students. Another threat is that schools may not focus on STEM-related courses anymore, which reduces the desire to seek outside resources. Lastly, another business may decide to create a similar resource as sySTEMic flow that has credibility and online presence. This will be a threat to sySTEMic flow.

2.2 Literature Review

Since we are currently in a pandemic and sySTEMic flow is a relatively new organization with a limited online presence, literature on creative marketing ideas for online tutoring business would give ideas on how to grow the service. Many articles online gave many great tips on activities that can be conducted to grow an online presence. First, one should make their website Search Engine Optimization (SEO)-friendly. To create an SEO-friendly website, sySTEMic flow can optimize their website to include popular keywords that individuals may search up. Examples of keywords are given by the small-scale research conducted below. Additionally, some budgets for paid campaigns for services such as Google Ads may help sySTEMic flow gain more traffic to their website.

The article communicates the effectiveness of social media. sySTEMic flow can use social media by creating online forums to create awareness and to support learners (*How to Market Tutoring Business / Marketing tips for online tutoring business*). Additionally, hashtags might help sySTEMic flow as individuals can press on a hashtag to show related posts. Lastly, LinkedIn might be a great source as it focuses on social networking sites and so sySTEMic flow can network with LinkedIn.

Additional activities that sySTEMic flow can do are blogging or creating educational/marketing videos. These contents can be posted on any social media site, such as Youtube, Facebook, Instagram, etc., which may increase relationships between viewers and sySTEMic flow and bring more traffic to sySTEMic flow websites. If this doesn't work, sySTEMic flow can post flyers on school or local community boards. Since some schools are opening up, individuals who are trying to get back into school learning may require additional resources and find sySTEMic flow's flyers on the local board.

Some articles communicated that print media advertising may help sySTEMic flow reach a certain target audience (*How to Start a Tutoring Company: Finding Students and Marketing Your Services* 2020). Newspapers are still being read by many individuals and so campaigns on newspapers and magazines may reach certain audiences. Additionally, digital ads may be cheaper and easier to distribute. Ads on search engines or social media may improve the online presence of sySTEMic flow.

Overall, the lesson from the article is that there are many marketing strategies that sySTEMic flow can conduct and they don't need to conduct all of them at once. They should focus on what they can do and slowly adapt and include more if fundings allows. Additionally, marketing isn't always advertisement and promotion. sySTEMic flow must add more value to users which will increase customers.

2.3 Small Scale Survey & Interview Research

Survey Research:

We conducted a small-scale research survey to better understand the social problem. We received 28 responses however only 12 were viable and 3 dropped out midway. Additionally, there were several questions that were skipped along the way. The majority of the ones who did complete the survey may not fit the target market as 67% makes over \$90,000 a year and 63% doesn't fit the minority group. However, we still believe that some of the results were beneficial to understand.

The parents who responded to the survey had children that went to different school districts, which included Belmont School District, Boston School District, Brookline School District, and Cambridge School District. Some respondents have children that went to school outside of Massachusetts. 55% of respondents have heard of sySTEMic flow before taking the survey and they heard them from NSBE Boston, EForAll, and a colleague, however none of them have children enrolled in sySTEMic flow. About 50% of respondents have a background in STEM with 60% believing that their children are really interested in STEM-related courses.

From those who responded, 36% of them have children enrolled in math tutoring service, and they heard about such service from the word of mouth from other parents or individuals. The main social media sites that most respondents use are Facebook and Instagram, while 13% indicated Google. They believe that search engines, word-of-mouth, and resources provided by academic institutions are the three main methods of finding external tutoring services. Some keywords that respondents would use to search for tutoring services are math, tutor, "location",

English, and learning resources. 78% indicated that they enjoy face-to-face tutoring while the other 22% indicated that they have no preference in the tutoring style. In terms of google links, khan academy ranked high as one of the first links respondents would choose while those that indicated color or ethnicities were ranked low. However, this may be because respondents are not of the target market. Two suggestions that respondents gave about sySTEMic flow is that their website is too wordy and it isn't clear what resources sySTEMic flow offers (ie if only math service?). Lastly, 42% of respondents enjoyed the STEM workshop that is provided by sySTEMic flow.

Overall, our survey did not target the intended audience, however, they still provide some excellent feedback. Some feedback includes Facebook and Instagram being the most popular social media sites used and that cutting down on words from their website may get more traffic into their website. Additionally, information by mouth, search engines, and school resources are the three main source parents become interested in tutoring services. Although our small-scale research did not target the right audience, it still provided great insight on where to increase online engagement.

Interview Research:

Based on our survey insights, we wanted to expand on our findings by conducting interviews in order to gain additional understanding into our interviewees personal experience, as well as their advice as industry and information management professionals. To do this, we conducted two interviews and asked the interviewees questions regarding their own experience with tutoring services for their children, their time working within the tutoring industry, advice for social media, their perceived barriers to STEM education for women of color, and advice on search engine optimization strategy for sySTEMic flow.

The first individual that we interviewed was Martin Dias, who is a Supply Chain Information Management Associate Professor at Northeastern University. We chose to interview Martin because of his knowledge of search engine optimization and his personal experience as a father of Black daughters who has used tutoring services before. Martin has four daughters, age 16-23, and one daughter who is a senior in high school who has wanted to study engineering since she was 7 years old. Martin and his family are also involved in and have experiences with Black Girls Code, where his wife volunteers, two daughters have gone for tutoring, and the family invests money.

Martin offered great insight by discussing his and his daughters experiences with tutoring and STEM, as well as advice for search engine optimization. Looking at Martin's own experience, Martin and his wife normally split up tutoring their children, however he did once pay a Northeastern student to tutor his daughter in computer science and his daughters have used Black Girls Code when trying to learn a specific skill. Martin believes that the main barriers to STEM education for Black girls is a lack of resources and cultural bias and that creating awareness for the issue is hard. Focusing on search engine optimization, Martin recommends that sySTEMic flow not try to 'game the algorithm' by putting time or resources towards SEO since

it changes very frequently. Instead, Martin recommends driving traffic to social sites via blogs, posts, or partnering with institutions because the more content produced, the higher the business shows up in the search engine, so the content works as a natural SEO strategy that also drives engagement and increases followers. Martin mentioned that Facebook advertising could be a possibility because it is regional and pinpointed and garners more attention with sySTEMic Flow being a community-centered organization, but overall social media strategy is also important. When discussing social media, Martin had many tips, such as making content that appeals to all stakeholders, including testimonials, investing in multiple platforms, incorporating video, making sure people can see themselves in the material produced, and making sure content is consistent. Martin also discussed the importance of partnering with a larger organization that has infrastructure and networking with durable institutions and affiliates. STEM related programs oftentimes get more funding, so sySTEMic flow should take advantage of this opportunity and present themselves as a pipeline program for STEM to education related institutions. Martin went on to say that “Black women are having a moment,” so sySTEMic flow should take this time to align with institutions worried about their diversity standings who want to “make themselves look better.” Networking is a huge opportunity for sySTEMic flow since Boston is a hub for education. Instead of focusing on paid SEO, Martin suggests sySTEMic flow network with people in the Boston area and scale up by developing personal relationships and establishing connections. When we mentioned the opportunity of working with the Boston Public School system, Martin said that this would be a great growth opportunity, however more difficult due to parents protective nature over their children. Another opportunity for sySTEMic flow that Martin suggests is deepening their database by making people feel like an insider by giving them privileged insight into the organization. sySTEMic flow should look at themselves as a hub of a network and really focus on developing personal relationships with everyone they are involved with, from students, parents, connections and the community.

The next individual that we interviewed was Catharine Todd, who worked as a personal tutor for Princeton Review for many years and now works in recruitment for a private tutoring company called Summit Educational Group. We chose to interview Catharine because we believed that she could provide useful insight based on her professional experience within the tutoring industry, as well as her personal experience as a mother. Catharine has three children, aged 16 to 22, and has enrolled all of them into tutoring services at some point.

When finding a tutor for her children, Catharine looks for someone who is an expert in the subject matter and believes that word of mouth is the most important resource for finding a tutor. You can't trust when a company says they are the best, but you can trust someone who gives you a personal recommendation based on their own experience or another resource, such as a recommendation from a school. When discussing the possibility of partnering with schools, Catherine referenced a project that she worked on to try to recruit women of color in computer science where she went into high schools to promote interest for students to take a free college level computer science course by talking to teachers who would then reach out to students. Catharine found that it is difficult to recruit students via parents or teachers and found that it was

most effective to reach out to the students directly via text and establish personal relationships with the students or go through guidance counselors. Catherine also found that social media was not as effective as going in person. When discussing barriers for women of color in STEM, Catharine discussed lack of representation as one of the largest barriers and talked about how the pandemic had propelled this issue even further causing students to have to fight for their education and experience even more barriers when working from home.

3.0 Target Audience Profile

3.1 Demographics, geographics, relevant behaviors (including risk), psychographics, social networks, community assets and stage of change (readiness to buy/change behavior)

Our target audience is primarily parents of BIPOC in school years K-12 or the students themselves. Before the COVID-19 pandemic, these people would also need to live within a reasonable distance from sySTEMic flow's office in Roxbury, MA. Since March 2020, sySTEMic flow has expanded to online operations so living within a reachable range of the facility is only necessary for those seeking in-person tutoring. The students would need to have interest in STEM and may possibly be struggling with those subjects. Ideally, these consumers would stay with the company for a sustained period of time even after improving their comprehension of STEM materials.

3.2 Prioritize Segments

sySTEMic flow has a particular interest in improving the education and continuity rates for Black girls in STEM. As we have discussed, this is a systemic issue and sySTEMic flow is aware of that. They have created a business model that seeks to address the problem from multiple angles. Part of that is the recognition that the issue extends beyond just Black girls in STEM, but also other racial minorities or all genders. From our small scale research, we believe that partnerships with schools within Boston through social media platform, Instagram, will allow us to connect with students in the Boston area and communicate effectively with parents of minority students. Hence, Instagram can be a powerful tool to reach our target audience effectively.

4.0 Competition Analysis and Additional Factors Influencing Adoption of the Behavior

4.1 Perceived Barriers & Competing Behaviors/Forces

In order to increase sySTEMic flow's online presence, we've decided to recruit girls and women of color through partnerships and social media to get them interested in STEM to then enroll in sySTEMic flow. However, there are a couple of perceived barriers that could potentially stand in the way of achieving this goal. They include competing services, as well as societal forces such as racism and sexism. Competing services, which include other Boston-based tutoring services such as the Russian School of Mathematics, Khan Academy, Kumon and Black Girls Code, pose an obvious threat to this target behavior, as there is a risk that potential sySTEMicflow clients may perform the competing behavior of opting to receiving

tutoring with one of the mentioned competitors instead. While the STEM tutoring landscape in the greater Boston area offers services at competitive prices, we do believe that sySTEMic flow offers the most diverse range of focuses within the 4 pillars (science, technology, engineering and math), as well as the most welcoming, nurturing environment for girls and women of color.

Competition aside, there are larger societal forces that come into play when considering girls and women of color entering STEM-related fields. It is no secret that most of, if not all, of the fields are predominantly occupied by white males. With this being said, societal forces such as racism and sexism set up extremely high barriers of entry and make it incredibly hard for girls and women of color to get a seat at the STEM table, so to speak. While sySTEMic flow is working tirelessly to be a part of the solution in eradicating these barriers, they are still very real and must be taken into consideration when discussing barriers to the previously mentioned target behavior.

4.2 Potential Benefits for Targeted Behavior

The potential benefits of sySTEMic flow raising its online presence include the obvious result of becoming a major competitor in STEM tutoring services. This will eventually allow sySTEMic flow to grow their business and expand beyond the Boston area, infiltrating to other areas of Massachusetts and even into neighboring states. Eventually sySTEMic flow will become a national force to be reckoned with and will be a player in completely redefining the STEM landscape for girls and women of color across the nation.

4.4 Influence of Important Others

While we have decided to focus primarily on social media optimization, as well as building partnerships with local schools, word of mouth is still incredibly important and influential when it comes to creating and sustaining a successful business. This concept has been confirmed both through primary research, as well as interviews conducted with local tutoring professionals.

5.0 Marketing Strategy and Positioning Statement

5.1 Strategy That Reduces the Barriers to the Promoted Behavior While Increasing Benefits

When creating a marketing strategy, we wanted to combine our initial focus areas with the information that we gained through our analysis of sySTEMic flow and their competitors, as well as insights from our own research. At the start of our project, we spoke with sySTEMic flow's CEO and Founder, Jessica Sanon, and determined that we wanted to focus on sySTEMic flow's online presence and differentiation from competitors. After an analysis of sySTEMic flows competitors, our main takeaway was that the programs were rigid and lacked personal elements, which we felt could be a point of differentiation for sySTEMic flow by marketing sySTEMic flow as inclusive and more personable. This was reinforced in our interviews, where both interviewees stressed the importance of personal relationships. Focusing on our research insights from our survey, we found that social media is a common place for parents to find

tutoring services and the most common platforms are Facebook and Instagram. Previously, we were focused on improving sySTEMic flow's online presence through search engine optimization, however after speaking with Martin Dias, who is a Supply Chain Information Management Associate Professor at Northeastern University, he recommended that instead of trying to game the algorithm, we use social media to promote natural SEO through content produced and digital partnerships with larger organizations and institutions.

With this information being taken into consideration, we wanted to create a marketing strategy that combines sySTEMic flow's digital presence with the opportunity to develop personal relationships with students and the Boston Public School system. To do this, we believe an effective strategy would be creating a partnership with the Boston Public School system and establishing a relationship that combines digital and in-person interaction. Digital content is a useful way to reinforce relationships and stay connected with parents and students, so we think that driving traffic through social features on Boston Public Schools Instagram, @bostonschools, will drive traffic to sySTEMic Flow's own social platforms, resulting in a larger following and more students interested in sySTEMic flow's tutoring services. sySTEMic flow can also use social media to deepen relationships and position themselves as personal and connected to the community. For example, sySTEMic flow can go to schools within the Boston Public School system and spend time with students or host programs that they will then document on social media by producing an announcement that sySTEMic flow will be at the school before and posting pictures with the students after. From here, Boston Public Schools can repost sySTEMic flow's posts to their social media which will work to increase traffic to sySTEMic flow's digital platforms. This strategy appeals to parents of students by showing that sySTEMic flow is involved with the students in a personal way, and is a trusted tutoring service recommended by the student's school. This strategy works to eliminate current barriers for sySTEMic flow, such as not being able to find sySTEMic flow online and a lack of differentiation from other tutoring services. We believe that combining digital and word-of-mouth engagement will promote personalization and inclusivity that will encourage parents and students to learn more about sySTEMic flow and sign up for their tutoring services. In order for sySTEMic flow to be successful digitally, sySTEMic flow should follow an effective social media strategy which we will investigate later in our randomized controlled trials.

5.2 Target Audience View of Targeted Behavior and Narrative

We want our target audience, who are parents of women of color in STEM, to see the targeted behavior, which is signing up for sySTEMic flow's tutoring services, as an incredible opportunity to work with an organization that cares about their students and wants them to succeed. Since women of color face so many barriers to pursuing STEM education, we want to position sySTEMic flow as an organization that focuses on developing personal relationships with their students and helps them overcome obstacles together. As we have mentioned, many other tutoring companies position themselves as rigid and lack personal relationships. We want to differentiate sySTEMic flow and communicate the narrative that sySTEMic flow is an

inclusive and positive environment with supportive tutors and mentors that will help them to become successful in the field of STEM. sySTEMic flow and Jessica Sanon have an incredible story that inspires women of color to follow in Jessica's footsteps and push through challenges faced by women of color in the STEM field. This already differentiates sySTEMic flow from a personal perspective and now it is all about communicating this through marketing, and combining digital and in-person interactions to continually reinforce this story and recruit more students to take part in this incredible organization who isn't in it for student's money, but rather their success.

6.0 Marketing Objectives and Goals

6.1 Campaign Objectives

Focusing on social media marketing and word of mouth techniques, we developed a marketing tactic that collaborates with Instagram of school districts of Boston, specifically @bostonschools. If the collaboration with the instagram page @bostonschools is successful, sySTEMic flow will have the opportunity to continue collaborating with other districts within Massachusetts. Our desired behavior and attitude is to get more minorities, specifically black females, interested in STEM fields, however, this goal is too large and complex. sySTEMic flow is also in the early stages of tutoring, and so our specific goal is to get more traffic into sySTEMic flow's website and this will hopefully increase awareness of sySTEMic flow and their mission. Our first objective is to contact and collaborate with @bostonschools and convince them to post one image on their instagram page about sySTEMic flow. The next step is to decide on what to post. Our data from our RCT will determine what type of posts will increase engagement, whether it's shorter or longer worded posts with or without a call to action. Then, our strategy is to include a picture of Jessica with students at Boston High Schools to connect and build a relationship with them. Once the post is posted on @bostonschools instagram page, sySTEMic flow can then continue monitoring and the traffic into and out of their websites.

Our goals and objectives are written using **SMART** (Specific, Measurable, Achievable, Relevant, and Time-bound). Specifically, we hope that @bostonschools will allow sySTEMic flow to post one image about them which will include a short description (less than 150 words) and an image of Jessica with students. The post should include a URL directing to sySTEMic flow's website and click through rate will be measured. Since @bostonschools has 7,500 followers, we hope to get 20 clicks, which is 0.267% of their followers. We believe this is achievable because 0.267% is roughly the average number of click throughs for Instagram. This campaign is relevant as our survey and interview shows that word of mouth and social media tactics are important for tutoring services. sySTEMic flow will have the opportunity to communicate its values to consumers and all this will all be under digital marketing with some in person marketing as students are still in hybrid mode. Lastly, we hope that within the first week of collaboration, this will bring more traffic into sySTEMic flow's website. This campaign can be done multiple times, with different variations, and can be COVID-19 pandemic friendly.

7.0 Marketing Mix Strategies

7.1 Product: Benefits from performing behaviors and any objects or services offered to assist adoption (social proposition)

The social value proposition sySTEMic flow provides is their offering of tutoring help for students who are interested in STEM. This tutoring is offered to all students however, sySTEMic flow targets young girls and women of color. sySTEMic flow is unique in the way they teach. They provide encouragement and positive reinforcement to help guide students to discover subjects they may not have known they were interested in.

7.2 Price: Costs that will be associated with adopting the behavior (social cost)

Costs: money, time, physical effort, and psychological

The implementation of organic social media is relatively inexpensive. “Organic social media refers to the free content (posts, photos, video, memes, Stories, etc.) that all users, including businesses and brands, share with each other on their feeds” (Cooper, 2020). Every so often when needed, paid social media advertisements could become useful. In this case, a budget could be created for each campaign. “Paid social media is another word for advertising. It’s when brands pay money to Facebook, LinkedIn, Twitter, YouTube, etc. in order to have their content shared with specific new audiences who are likely to be interested, either through “boosting” their organic content, or designing unique advertisements” (Cooper, 2020).

When it comes to cost of time, consumers will not need much time to dedicate to the social media ad they come across. The informative call-to-actions we will provide in the posts, will ensure a relatively quick engaging experience for the consumers. Following, liking, commenting, signing-up, etc. will not be a burden on people for time.

From a psychological standpoint, there could be an information overload through the social media posts that could potentially overwhelm the consumer. “Overload has also been reported to be highly associated with users’ psychological changes in online contexts like online shopping (Soto-Acosta et al., 2014), SNS (Lee et al., 2016), and online information searches (Swar, Hameed, & Reyhav, 2017)” (Fu, Li, Liu, Pirkkalainen, & Salo, 2020). To avoid this there should be simple language and clear messages to avoid any potential exhaustions.

Price-related tactics to reduce costs

sySTEMic flow offers monetary incentives, in terms of tutoring services and non monetary incentives, such as relationship building. Both of these combined creates a distinctive form of motivation that will be beneficial to their long-term growth.

7.3 Place: Making access convenient (accessibility)

Creating convenient opportunities to engage in the targeted behaviors and/or access products and services

Place plays a crucial role for sySTEMic flow to communicate with current and potential clients, while building a stronger relationship with them. This makes placement increasingly important as sySTEMic flow needs to find a method of communicating with everyone. sySTEMic flow uses social media, such as Instagram and Facebook, to communicate with their current or potential customers. Additionally, sySTEMic flow's website is very informative and will direct visitors to their appropriate place.

From our survey, we found that Instagram is a popular platform and so our placement will be Instagram. By posting on @bostonschools page, we hope to reach our target audience of parents with children in high school located in the Boston area. However, this can be increased upon in future campaigns.

7.4 Promotion: Persuasive communications highlighting product benefits, features, fair price, and ease of access (social communication)

The messages we choose to share with our target audience will promote sySTEMic flow's product benefits, features, pricing and ease of access both on their own social platforms, as well as on @bostonschools page. The messaging, as proven effective in our RCT, will be clear, concise, action-oriented and will also relay the sense of warmth and openness that we believe differentiates sySTEMic flow from its rivals. Any and all social communications will match systemic flow's tone of voice, while still being informative and purposeful.

7.5 Randomized Control Trial Design

Unequal access and the retention rate for women and girls in STEM is a systemic issue. sySTEMic flow recognizes this and has been working to bridge the gap through various programs. We want to help sySTEMic flow optimize their social media posts to bring more awareness to their work. Some variables of interest include digital marketing methods for informational campaigns that encourage families to join sySTEMic flow or similar tutoring services. Numerous studies on the effectiveness of social media posts highlight the need for clear, short, and strong messaging. Longer posts have more variability in what message the viewer takes away from the post. Shorter posts however run the risk of being confusing or not engaging due to a lack of information.

We hypothesize that shorter, action oriented posts will produce higher engagement on sySTEMic flow's Facebook and Instagram, which will lead to an increase in the number of people who click on the included link. Social media research proves that the ideal length for an Instagram caption is between 138 and 150 characters, while the ideal length for a Facebook post is between 40 to 80 characters (Jackson, 2021), and Facebook posts that contain 80 characters or less earn 66% more engagement (Shleyner, 2018). Content that takes less time and cognitive energy is easier to process, which leads to higher engagement and increased visibility. Shorter

posts also eliminate common barriers to engagement, such as users having to click ‘See More’ on longer Facebook posts and Instagram’s algorithm placing posts with less engagement below those with higher engagement (Shleyner, 2018). Another consideration is the importance of including a call to action in a social media post to give users direction on the next steps to take. Adding a call to action can drive traffic to a website or increase engagement by encouraging users to like, comment, share, repost, etc. (Elliott, 2017). By optimizing sySTEMic flow’s social media posts and generating more clicks, we hope that followers will become more aware of sySTEMIC flow’s work and dedication to inspire and support young Black girls and women in furthering their love for STEM.

Our target audience is parents between the ages of 40-55 with children (especially daughters) in high school located in the Boston area. Our sample size will be those who are already following sySTEMic flow through their Facebook platform. The independent variables are length of post and actionability. In order to ensure validity, we will only observe one independent variable at a time. Additionally, each post will only be accessible to certain towns in Massachusetts to reduce confounding variables. The experimental groups are as follows: Post 1- short, action oriented; Post 2 - short, non actionable; Post 3- long, action oriented; Post 4- long, non actionable. The control group will be created similar to sySTEMic flow’s current posts. The posts from both the experimental and control groups will include a suggestion to click the link in sySTEMic flow’s bio for more information. We hypothesize that the shorter, action oriented post will produce the most engagement. The outcome we are looking to measure is the number of clicks the link receives. We will then evaluate how the click quantities differ between the control and experimental groups. If our hypothesis is correct, the posts with clear, short, and action oriented messaging will increase potential customer’s interest and generate more clicks of the link for more information.

In order to ensure accurate results, time, day of the week, length of time the posts are left up, subject matter and call to action will be identical for both posts. The posts will be shared one week apart, both on Thursday at 11am in order to ensure uniformity between optimal social posting hours. The posts will remain live for three hours each and will be taken down at 2pm the day they are posted. Immediately after taken down, the number of clicks will be observed and compared to reveal whether or not we will accept or reject the previously stated hypothesis. We will repeat this process for several weeks, allowing each post to be shown three times. Repetition ensures validity and we believe repeating this process three times will allow us to be confident in the results.

8.0 Plan for Monitoring & Evaluation

8.1 Purpose & Audience for Monitoring & Evaluation

The purpose of our marketing strategy is to bring more traffic to the sySTEMic flow website, and hopefully, as a long term goal, increase the client base of the company. Our audience will be the current sySTEMic flow client base, the followers of Boston Public School instagram account, and boardly, parents looking for tutoring services for their children.

8.2 What Will Be Measured

We will be measuring the engagement of traffic into sySTEMic flows' website once @bostonschools Instagram page posts about sySTEMic flow. Additionally, the number of followers for sySTEMic flow's Instagram page will also be measured. We hope to see an additional 20 clicks to sySTEMic flow's website, which is 0.267% of @bostonschools followers. Lastly, we hope to see an increase in sySTEMic flow's total client base.

8.3 How & When Measures Will Be Taken

Data for the post from @bostonschools will be collected a week after the post has been up. This will give sufficient time for the followers of @bostonschools to see, interact, or engage with the post. Additionally, we will record the amount of followers and clients sySTEMic flow has before running any experiments. We will then measure followers and clients after all the rounds of posting and Boston Public School promotions have been completed. We will do a final measure of followers and clients two months after the experiment has ended to gauge if word of mouth has helped increase the following and clients post-increased exposure, or conversely, if people unfollowed the accounts.

Both the RCT and social tactic/strategy will give us an understanding if partnerships through social media will be an efficient method of increasing awareness to sySTEMic flow. If this seems to have increased engagement and provide an additional value to sySTEMic flow's client base, then sySTEMic flow can continue to partner with other accounts through social media platforms to increase online presence.

References

- 5 ways to engage more students in STEM. (n.d.). Retrieved February 04, 2021, from <https://ngcproject.org/blog/5-ways-engage-more-students-stem>
- ABOUT US. (n.d.). Retrieved February 04, 2021, from <http://www.systemicflow.com/about-us>
- Anna Peck / 28 May 2020. (n.d.). Anna Peck. Retrieved February 04, 2021, from <https://themanifest.com/digital-marketing/small-business-digital-marketing-tips-2020>
- Bureau, U. (2018, November 06). School engagement higher for children in extracurricular activities. Retrieved February 04, 2021, from <https://www.census.gov/newsroom/press-releases/2018/childs-day.html>
- Chaffey, D., & commentator, E. (2021, March 5). *Average CTRs for Search, Display and social [latest stats and charts]*. Smart Insights. <https://www.smartinsights.com/internet-advertising/internet-advertising-analytics/display-advertising-clickthrough-rates/#:~:text=Instagram%20ad%20clickthrough%20rate%20in.a%20little%20higher%20at%200.33%25>.
- Cooper, P. (2020, September 17). Organic vs. paid social Media: How to integrate both into your strategy. Retrieved April 27, 2021, from <https://blog.hootsuite.com/organic-vs-paid-social-media/>
- Fu, S., Li, H., Liu, Y., Pirkkalainen, H., & Salo, M. (2020, June 18). Social media overload, exhaustion, and use discontinuance: Examining the effects of information overload, system feature overload, and social overload. Retrieved April 27, 2021, from https://www.sciencedirect.com/science/article/pii/S0306457320308025?casa_token=YpGCuRg8NCgAAAAA%3ABc1qRK61oIF197M7Kta8Y5KaKeCsVyXRJBSpUECVa9GWEgM9a_3m3jd2KVvaA-IBTLwmK_qsP1c
- Gonzalez, J. (2016, July 22). 5 reasons why having an online presence is essential for your small business. Retrieved February 04, 2021, from <https://www.allbusiness.com/5-reasons-online-presence-essential-small-businesses-106737-1.html>
- How parent involvement leads to student success. (2019, March 13). Retrieved February 04, 2021, from <https://www.waterford.org/education/how-parent-involvement-leads-to-student-success/>
- How to Market Tutoring Business / Marketing tips for online tutoring business.* smartyads. (n.d.). <https://smartyads.com/blog/marketing-tips-for-online-tutoring-business/>.
- How to Start a Tutoring Company: Finding Students and Marketing Your Services.* Trilogy Mentors.

(2020, August 23).

<https://trilogymentors.com/how-to-start-a-tutoring-company-finding-students-and-marketing-your-services/>.

HubSpot. (n.d.). 2020 marketing Statistics, trends & data - the ultimate list of digital marketing Stats. Retrieved February 04, 2021, from <https://www.hubspot.com/marketing-statistics>

Published: Mar 26, 2. (2020, December 05). Digital marketing 101: What small businesses need to know. Retrieved February 04, 2021, from <https://smallbiztrends.com/2019/03/digital-marketing-101.html>

Racial disparities in income and poverty remain largely unchanged amid strong income growth in 2019. (n.d.). Retrieved February 04, 2021, from [https://www.epi.org/blog/racial-disparities-in-income-and-poverty-remain-largely-unchanged-amid-strong-income-growth-in-2019/#:~:text=In%202019%2C%20the%20median%20Black,cents%20\(unchanged%20from%202018\).](https://www.epi.org/blog/racial-disparities-in-income-and-poverty-remain-largely-unchanged-amid-strong-income-growth-in-2019/#:~:text=In%202019%2C%20the%20median%20Black,cents%20(unchanged%20from%202018).)

RSM: Russian School of math after school program. (n.d.). Retrieved February 04, 2021, from <https://www.russianschool.com/>