

A Protocol for Applied Consumer Behavior Research in Academia

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Abstract—A Montana university has used applied consumer research in experiential learning with non-profit clients for over a decade. Through trial and error, a successful protocol has been established from problem statement through formative research to integrated marketing campaign execution. In this paper, we describe the protocol and its applications. Analysis was completed to determine the effectiveness of the campaigns and the results of how pre- and post-consumer research mark societal change because of media.

Keywords—Marketing, experiential learning, consumer behavior, community partner.

I. INTRODUCTION

THIS paper considers how academic institutions can contribute to a nascent body of literature on lifestyle marketing for consumer behavior. The results will add to a growing, but limited body of knowledge on the effects and approaches of marketing behavior change communication.

Experiential learning of consumer behavior in academia has focused on field experiments or observations, with the student deliverable being a report. Montana University has provided an outlet for students to use consumer behavior theories and techniques to deliver integrated marketing campaigns for local community clients for over a decade. By establishing the following protocol, academia, faculty, and students can replicate award-winning experiential learning.

Rundle-Theile et al. [1] explained that social marketing techniques include (but are not limited to) segmentation, formative research, competitive analysis, and the employment of a full marketing mix. The first and most important step in social marketing is formative research, whereby social marketers seek to understand target audiences at the outset of interventions.”

II. BACKGROUND

The students and faculty work across disciplines, including marketing, communication research, and public relations. Each effort has resulted in an applied multi-media social marketing campaign. The established protocol starts in the fall semester with the College of Business Course, Integrated Marketing Communications performing Secondary and Quantitative Research, Segmentation and Target Analysis, and Competitive and Value Analysis. The College of Arts and Sciences Courses: Campaign Planning or Research Methods conducts Formative Research. In the spring semester, The College of Business

Course: Undergraduate Capstone performs Creative Development and Testing and Campaign Execution, as the College of Arts and Sciences Course performs Public Relations.

Community clients are chosen based on their objectives to benefit consumer welfare and quality of life or contribute to Transformative Consumer Research. Some have been involved in public policy or politics. They have included Prevention of Domestic Violence for Carbon County, Yellowstone County Adult Resource Alliance, Yellowstone Boys and Girls Ranch, Billings Clinic Prevention of Childhood Obesity, Energy Star of Billings, Beartooth Nature Center, the ballot initiative for a new city library, and the Montana Real ID. Clients contribute a budget for the students to manage, but all invoices from professional services are sent directly to the client for payment. Budgets have ranged from \$5,000 for production with free media to \$100,000 for production and media.

III. PROTOCOL

A. Problem Statement

Every protocol begins with a Memorandum of Understanding (MOU) with clearly identified deliverables and objectives. Milestones are set to obtain ongoing client approval after each phase: target selection, value analysis, and creative development.

Important lessons include the pitfall that clients may change their objectives, often complicating the process at the final production phase. With the Childhood Obesity campaign, for example, the client (a regional private hospital) rejected creative concepts presented by students that had already been vetted through focus group testing. The client claimed the “Heavy Truth” campaign was not consistent with the client’s brand. Faculty leaders had to determine that the client needed clarification about their objectives, and the best solution was to walk away from the project at the final phase. With a Domestic Violence campaign entitled “Open Your Eyes,” the client’s objectives were to change attitudes and increase awareness. In the last phase, the client wanted us to change the objective to drive traffic to women’s support facilities. We were going to walk away until they agreed to stick with the original objectives.

B. Secondary Research

Before gathering primary data, students review all current and past campaigns, like each client’s objectives and associated consumer behavior literature. With the Energy Star campaign,

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research helped us understand the need to promote individual actions and provide statistical results of a collective effort. According to [2], “Collective action is frequently identified as playing a pivotal role in adaptation to environmental change, yet our research suggests an increasing focus on individualism.”

C. Formative Research

Primary data collection involves interviews and surveys to identify baseline perceived efficacy, barriers, threats, and potential target audiences. With Energy Star, the perceived barriers to conserving energy included the cost of replacing appliances and vehicles, lack of knowledge about how to conserve, job losses relating to conservation, and the general inconvenience, difficulty, and discomfort associated with the idea [3]. Perceived benefits included obvious cost savings and environmental advantages, potential timesaving, positive feelings, and tax credits. High self-efficacy was reported for actions such as changing to CFL light bulbs, lowering or raising thermostats, and turning off lights when not in use [3].

D. Quantitative Research

An essential lesson in this phase was that the Marketing Research course was on a different timeline, with different learning objectives. We did try to utilize the course in the protocol but found it unable to meet the demands of the overall planning cycle. The result was to require it as a prerequisite for all students taking the Integrated Marketing course, providing the expertise for instrument development and distribution and statistical analysis on time.

For Adult Resource Alliances (ARA), our goal was to understand if the target audience, people over age 50, considered themselves old or seniors. We were specifically interested in whether they felt their “prime of life” was ahead of them, behind them, or if they had reached their full potential. We used a Likert scale questionnaire to compare mental, physical, spiritual, and financial well-being. Then we tested for variances in age groups and found hardly any variances.

The ANOVA results were significant, $F(8,2771) = 18.15, p = .000$, indicating at least one statistically significant difference between prime of life variable pairs. The highest-ranking variable defining the “prime of my life” was being able to spend time with family and friends ($M = 4.11, SD = 0.98$) [4]. Moreover, a statistically significant difference could not be found. Three variables — being content with an emotional self ($M = 4, SD = 1.0$), being at peak mental capacity ($M = 4.04, SD = 0.91$), and being spiritually content ($M = 3.94, SD = 1.01$) — were the second most important variables used to rank prime of life factors [4].

Significant variances based on Pearson chi-squared tests were found for “My prime of life is ahead of me” and “I have reached my full potential.” This was calculated for the groups aged 40 to 49, 50 to 59, and individuals above age 60. For “My prime of life is ahead of me,” the relationship between these variables was significant, $X^2(4, N = 277) = 22.82, p < .01$ or “I have reached my full potential,” the relationship between these variables was significant, $X^2(4, N = 277) = 9.33, p < .01$ [4].

Based on the research and ongoing phases, a value statement

was developed to reposition the services for those with a younger and more active view of themselves. “Keeping Up with You” continues to be successful to date.

E. Value Analysis

Value analysis starts with the means-end chain conceptual advertising strategy [5]. For the new city library, values were identified based on the phase knowledge gained in the formative research (Table I). Witte's [5] Extended Parallel Process Model was applied to identify the campaign objectives and analyze the results. In February, three formative focus group discussions were conducted with “swing voters” between 24 and 57 ages in Billings. Through literature related to the library campaign, we found out that residents between 18 to 69 ages have the likelihood of voting favorably if a library referendum is on the ballot, general voting behavior, experience of the library services, and barriers to using or supporting the library [6].

TABLE I

THREAT AND EFFICACY CITY LIBRARY		
Threat is LOW	Perceived Severity	The community will not suffer from the absence of a library or tax
	Perceived Susceptibility	An individual will not suffer from the absence of a library or tax
Efficacy is LOW	Self-Efficacy	Individuals cannot take advantage of the solution
	Response Efficacy	Individuals do not believe in the solution.

The strategy was to target YES voters to act, swing voters to vote yes, and not communicate with NO voters. The Means-End Chain values were used to develop Fig. 1, the Perceptual Map, focusing on how to move two segments of unlikely voters and why they were unlikely to be likely voters. One segment of voters believed in the transformational nature of the community but did not want to pay more taxes. Their message would focus on economic value. The other segment did not mind raising taxes but was unsure of the need. Their message would focus on the library's dynamic new nature and benefits.

Voting for the Library	Future Transformation/Advanced Technology
Infrastructure/Good use of Public Funds\	Cost-oriented = need Education
No Need=Need Education	Not Raising Taxes
	\Not Voting for the library
	Settling for the status quo

Fig. 1 Perceptual Map [6]

Value statements and potential slogans are developed by combining the values at the end of the scales of quadrant owned by the product. In this case, the value statement would be that the new library would be an excellent investment to transform our future. The value statement then drives creative briefs and concepts.

F. Creative Testing

With Montana ID, several creative campaigns were creative and tested with multiple focus groups. There were some overall responses as follows:

- We need to include Montana.
- I need to make sure explaining the process is clear.
- We need to ensure the PSAs are consistent with the other elements in the campaign, where more information is given. Social media, website, collateral: this is the continuity making getting to the facts easy.

We revised and added two campaigns and retested the campaigns with new focus groups. The resulting positive campaign result is as follows:

- Lewis and Clark: "Home run, Love the higher level of security, this is important, funny, gets my attention and keeps it, made me aware, real me is good. "

Creative Execution

In Table II is one of the PSAs produced for the Real ID campaign.

TABLE II
 SCRIPT FOR CAMPAIGN

VIDEO	AUDIO
	<i>(Sounds of Billings Airport)</i>
Wide Shot - Lewis and Clark approach TSA checkpoint with gear. Agent asks for IDs.	Agent: Hello Gentleman, May I see your Montana Real ID?"
Medium shot - Not understanding, Lewis & Clark introduce themselves	Lewis: "ID? I'm Captain Meriwether Lewis."
Close up - Clark	Clark: "And I'm Captain William Clark."
Close up - Agent shakes his head, directs their attention to SIGN with information about the website & documentation needed for Real ID.	<i>(Airport sound continues)</i>
Three shots - Lewis, Clark, and Agent as he looks through the list	Agent: Hang on, I see more than one William Clark in the database.
Wide shot - The alarm goes off, and TSA agents surround them.	<i>(Sound of Alarms going off. Alert, Imposter Alert.)</i>
Lewis and Clark raise their hands to surrender.	Clark: It's the real me, I promise.
MVD Official talks to the camera	MVD Official: Discover more at MT REALID.gov, available January 2019.
Montana Real ID Logo MTRealID.gov The Real Me	Clark: Montana Real ID It's the Real Me.

IV. EVIDENCE OF IMPACT

In this phase, the lesson learned is that not all clients want to support post-research financially. Most were satisfied to observe actual or media-oriented responses, which is possible in the local community. Two of the campaigns conducted surveys to measure attitude or behavior change based on the campaigns. The MOU should include this phase to best contribute to the literature. Also, this phase happens after the campaign has aired and the project students have graduated. Thus, it is left to the faculty leadership to complete or students whom they can supervise in independent studies.

With Domestic Violence, the data for each outcome were analyzed using two-factor ANCOVA before and after the campaign. Results showed that 21% of the target audience, irrespective of gender, recalled seeing messages from the campaign; 10% of those exposed reported taking some action. This degree of audience recall is impressive, given the non-

profit nature of the project and the fact that most of the media were obtained through donations, pro bono rates, or public service announcements. This campaign triggered a backlash reaction among some men, a reaction to unflattering gender stereotyping [3].

With City Energy, a post-test direct mail survey using similar variables as the pre-test survey was sent to potential respondents. Of the 2,000 random sample city residents receiving the survey, 479 responded with self-reported campaign exposure. With 90% confidence, there was a difference between those that saw the campaign and those that did not.

In the attitudes category, the campaign did decrease perceived time barriers to energy conservation. Self-efficacy and response-efficacy to conserve were increased.

In the practice category, the campaign did increase the individuals' action. Results verified that individuals did increase their practice of shutting off lights that were not necessary and their practice of turning up or down the thermostat. Finally, the practice of unplugging small devices also showed increased action taken by individuals.

V. POLICY IMPACT

The Montana MVD campaign, entitled "The Real Me," was developed based on audience research undertaken in 2017 and 2018 about attitudes towards and knowledge of the Real ID. Results showed that Montanans did not resist the new identification cards but were confused about how and when they would be implemented. Results of our 2018 survey of Montana residents showed that 57.3% planned to get it within the next six months, and 24.6% planned to get it within the next year. While confusion did not show strongly as a predictor of resistance in our survey findings, focus group research with 40 Montana residents, ages 18–55, showed much misinformation about the Real ID. When asked what they knew about the Real ID prior to the focus group meeting, respondents said, "Did not know a thing;" "Zero. I know nothing;" and "Well, I have heard things. However, I thought it had already happened or was not going to happen. I was surprised to find out it's now happening in 2018." Thus, an informational campaign – featuring historical characters familiar to Montanans, Lewis, and Clark – was designed to deliver the relevant information straightforwardly. The branding and slogan, "The Real Me," was intended to appeal to the sense of authenticity important to Montanans and emphasize Real ID's role in national security.

In the campaign ads, aired on radio, TV, and social media, the characters of Lewis and Clark find themselves in situations where they would need a Real ID, such as trying to fly to avoid using their canoe or hiking. The goal was to use the Lewis and Clark characters to raise awareness about Real ID and drive the audience to visit the website (www.mtrealid.gov) to learn more about it. The ads did not address privacy concerns; rather, they attempted to gain viewers' and listeners' attention through humor to drive audience members to the state website to learn more about obtaining a new license or ID card. Although inoculation messages to promote public security measures in the wake of 9/11 or COVID-19 may have been sensible, erosion

of public opposition to the Real ID Act seems to have undermined the need for such sophisticated marketing campaigns in this instance.

Research was undertaken to assess the campaign's impact and determine the role of privacy concerns, leading to the following research questions: RQ1: Do individuals exposed to the campaign have greater awareness about the Real ID Act compared to individuals not exposed to the campaign? RQ2: Do individuals exposed to the campaign have greater intentions to obtain Real IDs than those who did not see the ads? RQ3: Do individuals with stronger privacy concerns have lower intentions to get the Real ID? An online survey was conducted in the Summer of 2020 to evaluate the impact of a marketing campaign entitled "The Real Me," undertaken by the Motor Vehicle Division to clarify Montana residents' understanding of the Real ID Act. A random sample of 5,000 was generated from a statewide list of registered voters. Respondents were contacted online by Gravis Marketing, a market research company hired for the project, and invited to complete the survey anonymously through a link to Qualtrics Survey Software. Questions probed on intent to get a Real ID, possession of a Real ID or passport, exposure to the "Real Me" marketing campaign ads, and attitudes about the Real ID. The university's Institutional Review Board approved the study, given that respondents remained anonymous and neither researcher received any personal compensation for the study; all funds provided by the MVD were used to purchase the mailing list and hire a research assistant. The questionnaire was a modified version of an instrument that had been previously pre-tested with a sub-sample of Montana residents and administered in 2018. Modifications to the instrument included the addition of a privacy scale and questions about campaign recall, exposure, and attitudes. A simple random sample of 5,000 Montana voters was generated from a statewide list of approximately 752,000 registered voters by a market research company hired for the project. The instrument probed on attitudes and awareness of Real ID. The privacy scale measured two dimensions of concerns about Privacy [Privacy as right and informational privacy]. Approximately 302 responses were obtained, skewed towards a more senior and educated demographic than the state population.

Of the 5,000 registered voters who were surveyed, 302 responses were obtained. These were skewed towards a more senior and educated demographic than the state population.

Responses were interpreted with this precaution in mind by considering how the sample's older, more affluent characteristics might influence responses.

Privacy concerns were measured by the privacy orientation scale established which includes four dimensions of privacy, of which we used two (informational Privacy and Privacy as a right). How respondents view informational privacy was measured by asking them if they are concerned about their personal information being shared by others, people knowing too much about them, the consequences of people sharing identity information, and sharing information with more people than intended. Concerns about privacy as a legal construct (i.e., a "right") were measured by asking respondents how much they

agreed or disagreed with the need to strengthen privacy laws, the need for legal protection against misuse of their data, and whether privacy should be encoded as a fundamental right.

Within informational privacy, respondents reported higher concern for having their information "shared by others" ($F = 0.866$) than the "consequences of sharing their identity information" ($F = 0.713$).

TABLE III
 FACTOR ANALYSIS

Rotated Components (Varimax with Kaiser normalization)	Informational Privacy	Privacy as a Right
Item	1	2
Initial Eigenvalues Total	3.94	1.19
Percentage of Variance	56.33	16.96
Cronbach's Alpha	0.87	.87
Shared by Others	0.866	0.176
People know too much	0.853	0.161
Consequences	0.717	0.384
Shared More	0.219	0.829
Fundamental Right	0.238	0.792

VI. RECOMMENDATIONS

Because the campaigns discussed in this article have focused on community clients, we have been able to observe or test the results of their effectiveness. This is essential as marketing results for consumer behavior are lacking in the literature, especially pertaining to lifestyle behavior change. Also, "There may often be a "knowledge-action gap" such that increasing knowledge and awareness does not routinely translate into congruent behavioral change" [7].

To prove that we teach the theories that attitude change equals behavior change, we want our students and clients to reap the rewards of actual results so that applied learning provides an authentic experience for the students to interact with the concept of enterprise. This protocol provides the student with a real experience throughout the entire delivery with the client, including observing the results in their community.

Lastly, the students have earned over a dozen Addy Awards from the Montana Advertising Federation for their efforts and the Montana Broadcasters of the Year Award.

Most of the campaigns can be viewed at the following website: http://www.msubillings.edu/businessfaculty/otjen/examples_of_advertising.htm

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