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Simulating Qualitative Research Relating to Values and Lifestyle Segmentation

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ABSTRACT

This study discusses a method for simulating focus-group research regarding the eight prototypic market segments proposed by SRI International’s VALS 2-segmentation system. While the paper does not present the technique in the context of an actual computer simulation, it identifies the key structural elements necessary for such a simulation. It suggests that these might be applied to the development of a research module for a comprehensive marketing simulation game or to a stand-alone simulation exercise for use when discussing either focus group interviews or values and lifestyle segmentation.

INTRODUCTION

Academics are fond of teaching quantitative methods of market research. While these are useful, the attention they get is not representative of their significance in marketing practice. Rather, focus group research is by far the most popular research approach.

Business games suffer from the same quantitative bias. Many games offer research reports to players who desire to purchase them. But these reports are typically tabulations of quantitative research.

This undoubtedly reflects the bias of the academics who write the games. But it also reflects the inherent difficulty in modeling the qualitative research process in a computer-simulated environment. A computer can easily report information about the parameters or current state of operating variables in a game. But these variables are quantitative in nature -- industry demand, market share, brand preference, attribute preference, and so forth.

This paper will report a method for generating focus group research results for students so that these results can be used in a simulated game environment. The focus group results will reflect the qualitative nature of consumer responses to various market situations for each of several different VALS 2 values and lifestyle segments.

THE VALUES AND LIFESTYLE SEGMENTATION MODEL

The values and lifestyles (VALS) system of market segmentation was developed by SRI International. It proposed that Americans could be divided into nine major segments, based on their level of need development and their inner- versus outer-directness (Mitchell 1983).

The level of needs dimension drew heavily on Maslow’s (1954) hierarchical theory of needs. It suggested that less affluent groups in society (i.e. “Survivors” and “Sustainers”) were driven by physiological needs, survival and security, struggling for the basic necessities of life. They were less psychologically mature than the groups that tended to have progressed to higher levels of the hierarchy.

By contrast, “Belongers” were driven by social needs, a need to fit into the world around them. They were characteristic of “Middle America,” the “Silent Majority” -- the conservative, conforming infrastructure of society.

The next highest level of the hierarchy was represented by a number of different groups. The groups were further differentiated by Riesman’s (Riesman, Glazer, and Denney 1950) notion of inner-versus outer-directness. Inner-directed segments included the transitional and rebellious “I-Am-Me” group, the hedonistic “Experimentalists,” and the artistic, value-driven “Socially Conscious.” Outer-directed segments included the economically and culturally disadvantaged “Emulators” and the success-oriented “Achievers.”

Finally, at the highest level of Maslow’s hierarchy were the self-actualizing “Integrateds.” These are highly mature people who incorporate both inner- and outer-directed characteristics, taking a broader, more holistic approach to life.

The VALS 2 system retains much of the original structure of the VALS system. Segments are still arranged in a hierarchy, drawing on the VALS System’s original roots in Maslow’s hierarchy of needs. In place of Maslow’s hierarchy, the VALS 2 hierarchy is based on consumer resources, from “minimal” to “abundant.” This refers to the full range of psychological, physical, social, and economic means required to live life in the way each type of consumer would like to live it.

In place of inner- and outer-directness, segments are differentiated based on self-orientation, whether people are motivated in their purchase decisions by principle, status, or a need for action.

Principle-oriented consumers tend to make decisions based on their beliefs, or commitment to principles, rather than acting on feelings, reacting to events, or pursuing a desire for approval. Status-oriented consumers offer a dramatic contrast. They tend to be strongly influenced by the actions, approval, and opinions of others. Action-oriented consumers provide yet another contrast, being driven by a need for social or physical activity, variety, and risk-taking (Values and Lifestyle Program 1989).

The actual VALS 2 system consists of eight segments arranged along the resources and self-orientation dimensions, as shown in figure 1. The actual description of the segments provided by SRI (Values and Lifestyle Program 1989) is as follows:

- **Actualizers** are successful, sophisticated, active. “Take-charge” people with high self-esteem and abundant resources. They are interested in growth and seek to develop, explore, and express themselves in a variety of ways -- sometimes guided by principle, and sometimes by a desire to have an effect, to make a change. Image is important to Actualizers, no as evidence of status or power, bu as an expression of their taste, independence, and character. Actualizers are among the established and emerging leaders in business and government, yet they continue to seek challenges. They have a wide range of interests, are concerned with social issues, and are open to change. Their lives are characterized by richness and diversity. Their possessions and recreation reflect a cultivated taste for the finer things in life.

- **Fulfilleds** are mature, satisfied, comfortable, reflective people who value order, knowledge, and
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Believers are conservative, conventional people with concrete beliefs based on traditional established codes: family, church, community, and the nation. Many Believers express moral codes that are deeply rooted and literally interpreted. They follow established routines, organized in large part around their homes, families, and social or religious organizations to which they belong. As consumers, they are conservative and predictable, favoring American products and established brands. Their education, incomes, and energy are modest but sufficient to meet their needs.

O Achievers are successful career and work-oriented people who like to, and generally do, feel in control of their lives. They value consensus, predictability, and stability over risk, intimacy, and self-discovery. They are deeply committed to work and family. Work provides them with a sense of duty, material rewards, and prestige. Their social lives reflect this focus and are structured around family, church, and career. Achievers live conventional lives, are politically conservative, and respect authority and the status quo. Image is important to them; they favor established, prestige products and services that demonstrate success to their peers.

O Strivers seek motivation, self-definition, and approval from the world around them. They are striving to find a secure place in life. Unsure of themselves and low on economic, social and psychological resources, Strivers are concerned about the opinions and approval of others. Money defines success for Strivers, who don’t have enough of it, and often feel that life has given them a raw deal. Strivers are easily bored and impulsive. Many of them seek to be stylish. They emulate those who own more impressive possessions, but what they which to obtain is generally beyond their reach.

O Experience are young, vital, enthusiastic and rebellious. They seek variety and excitement, savoring the new, the offbeat, and the risky. Still in the process of formulating life values and patterns of behavior, they quickly become enthusiastic about new possibilities but are equally quick to cool. At this stage in their lives, they are politically uncommitted, uninformed, and highly ambivalent about what they believe. Experience combine an abstract disdain for conformity with an outsiders’ awe of others’ wealth, prestige, and power. Their energy finds an outlet in exercise, sports, outdoor recreation, and social activities. Experience are avid consumers and spend much of their income on clothing, fast food, music, movies, and video.

O Makers are practical people who have constructive skills and value self-sufficiency. They live within a traditional context of family, practical work, and physical recreation and have little interest in what lies outside that context. Makers experience the world by working on it --building a house, raising children, fixing a car, or canning vegetables -- and have sufficient skill, income, and energy to carry out their projects successfully. Makers are politically conservative, suspicious of new ideas, respectful of government authority and organized labor, but resentful of government intrusion on individual rights. They are unimpressed by material possessions other than those with a practical or functional purpose (e.g., tools, pickup trucks, or fishing equipment).

O Strugglers’ lives are constricted. Chronically poor, ill educated, low skilled, without strong social bonds, elderly and concerned about their health, they are often resigned and passive. Because they are limited by the need to meet urgent needs of the present moment, they do not show strong self-orientation. Their chief concerns are for security and safety. Strugglers are cautious consumers. They represent a very modest market for most products and services, but are loyal to favorite brands.

THE UNDERLYING SIMULATION MODEL

The design of the focus-group research generator reported in this paper presumes that all consumers fall into one of the eight VALS 2 segments and that their responses to marketing stimuli will reflect a pattern that is peculiar to their particular segment. We reviewed the general nature of these patterns in the previous section. The generator must do several things:

1. Reflect the general orientation of each VALS 2 segment in the persona of focus-group participants that are presumably selected at random.
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2. Provide the student an opportunity to guide the focus group, much as a real focus leader would do, in response to the comments made by focus group members.

3. Provide guidance to the student when needed in order to help develop focus-group leadership skills.

4. Provide the student with realistic data from which he or she must extract underlying concepts.

5. Provide the instructor with some objective basis for evaluating the quality of student participation in the focus group exercise.

Representing the VALS Segments

The focus-group simulator assumes that there is a representative frame of people available for participation in each focus group, and that the chance of any particular type being selected corresponds to the proportion of the population constituted by their segment. Figure 1 indicates the percentages for each of the eight VALS 2 segments. Sampling will be done with replacement, so, given the fact that “Actualizers” constitute 8% of the population, the chance that any given participant will be an Actualizer is eight out of one hundred.

As a rule, a focus group should include seven to ten participants. Students will have the opportunity to indicate how many participants they actually want to include within this range. The actual composition of the group will depend strictly on probabilities, with no guarantee that all segments will be represented. Indeed, the chances that they will not all be represented in a single group approaches virtual certainty. This reinforces the notion that multiple groups are generally necessary to ensure that all perspectives are represented.

In the actual simulation program, prototypic participants are created by a Participant Generator. The generator uses random numbers to select one of the nine segment types (with replacement). For instance, group 1, “Actualizers,” account for eight percent of the population. The participant generator is programmed to select a random number from one to one hundred and any number between one and eight causes the participant to take on the characteristics of the “Actualizer” group. The generator then selects a name (without replacement) to help personify the participant for the person playing the game.

The generator also selects a participant response style for each participant (with replacement). These include:

- **Ideal cooperator.** A person who provides neither too much nor too little input, responding naturally and appropriately to questions, drawing on personal views or experiences that are relevant to the topic at hand.

- **Active cooperator.** A person who eagerly provides input, often dominating the discussion. While “active cooperator” input is useful, too much input from a single person can cause other group members to withhold their comments.

- **Passive cooperator.** A person who cooperates when encouraged, but who does not speak if others appear willing to fill the void.

- **Co-moderator.** A person who interjects his or her own questions into the discussion in an attempt to take over leadership of the discussion. If unchecked, a co-moderator will cause the moderator to lose control, making the group vulnerable to pursuing tangents or other unproductive patterns.

- **Interpreter.** A person who explains to the moderator what everyone else just said, thus inhibiting other participants from presenting their own views.

- **Expert.** A person who speaks for the group on every topic, taking issue with any who disagree. This also inhibits others from presenting their views.

- **Disrupter.** A person who behaves in a counterproductive manner, sidetracking the discussion with frivolous remarks, deprecating remarks, or irrelevant observations.

The role designations will control the nature of participants participation, not the content. For instance, a Disrupter who is an “Achiever” will still respond like an achiever if the moderator is successful in managing his or her participation. If not managed, however, he or she will continue to make sidetracking comments throughout the session.

Providing the Focus-Group Moderator Interface

In order to provide the student with an opportunity to guide the focus group, the simulator is programmed to generate responses that are reasonable, given the nature of the participants and the current state of the group. For instance, if a participant makes a “Disrupter” comment and the moderator makes no intervention, the other members of the group will respond to the comment and become less likely to make comments that are responsive to the question being discussed.

In the actual operation of the simulator, each participant comment must be followed by one of two moderator actions, as depicted in figure 2: First, the moderator may make an intervention in an effort to influence the group. Second, he or she may signal “continue” without making an intervention, in which case the simulator will cause a participant to either make a comment, or the group will remain silent. If the group remains silent, the moderator must either signal “pause” or provide some other kind of intervention.

The simulator provides a menu of possible moderator interventions. These would consist of a “pause” (representing five or more seconds of silence on the part of the moderator) or statements such as

- “Could you give me an example of what you mean?”
- “I don’t understand.”
- “Would you say more?”

While this approach does not permit students to innovate in their intervention style, it does provide choices regarding which intervention to use in a particular situation.

Providing Guidance to Help Develop Leadership Skills

In order to effectively intervene in a group, the student must first recognize the nature of the problem. The help function in the simulator does not tell students the nature of the problem that is occurring in the group (if one is occurring), but it does provide two diagnostic aids:
First is a description of the participant response styles listed above (ideal cooperator, passive cooperator, etc.). The descriptions also include a statement regarding the kind of problems each style might create for the group. Students can use these as templates against which to match the actual participants in the group, identifying dysfunctional response styles so that they can make appropriate interventions.

The second diagnostic aid is a description of different kinds of student moderator interventions. These include:

- **Questions.** Prior to beginning a focus group interview, the moderator should have an idea of what questions need to be answered. As a rule of thumb, these should be fewer than ten. When a topic has played itself out, or when the group session is just beginning, the moderator will sometimes need to ask a question in order to get the group moving. As the group progresses, the natural course of discussion may answer the question without it actually being asked. When this happens, asking the question is not only unnecessary, but it focuses attention on the moderator, making the group more dependent on moderator interventions. This, in turn, tends to inhibit free discussion.

- **Clarification Probes.** Comments often fail to communicate a clear picture of a particular segment attribute. In extreme cases, a respondent will simply say, “I agree” or “I feel that way, too.” The moderator can intervene with a probe such as “Would you explain further?” or “I don’t understand.” Using this kind of probe early in a session teaches participants to be more precise in their comments.

- **Illustration Probes.** Illustration probes a special case of clarification probes. Instead of triggering a restatement, the moderator might want to trigger an example by saying, “Could you give me an example?” or “Could you be more specific?”

- **Elaboration Probes.** When comments are clear regarding a particular segment attribute, the moderator can often encourage the participant to elaborate with other attributes by probing with interventions such as “Is there anything else?” Using this kind of probe early in a session teaches group members to provide greater depth in their comments. It is also provides encouragement to participants who are not participating as much as you would like, either because they are “passive cooperators” or because they have been turned off by “active cooperators,” “interpreters,” or “experts.”

- The moderator can often accomplish the same thing as using a probe by simply pausing and waiting for a person to say more. This is usually most effect later in a group session, when participants understand what kind of information is expected. All else being equal, a pause is more effective than a probe because it doesn’t focus attention on the moderator, and thus, avoids making the group more dependent on moderator interventions.

- **Redirection.** Sometimes the group discussion strays from the topic. When this happens, the moderator can often redirect the conversation with a comment such as, “We were talking about This type of intervention provides a good method of regaining control of the group when it gets sidetracked by “disrupters” or “co-moderators.”

- **Invitation.** If one or more participants are dominating the discussion, or if some participants are not participating enough for any reason, the moderator can encourage them with an intervention such as; “How do you feel about that?” This intervention provides another method of encouraging “active cooperators,” “interpreters,” or “experts” who are speaking too much.

The help function does not indicate which of the specific interventions from the menu correspond to which type. The student learning comes in large part through trying to match specific data to general categories and associating categories -- matching participant statements to prototypic response styles (“co-moderator,” “expert,” “disrupter,” etc.), selecting an appropriate kind of moderator intervention to match the appropriate response style, and selecting specific moderator interventions to match general intervention types.

### Providing Students with Realistic Data

In order to actually simulate a focus group, the game must provide the student with sufficient qualitative information to both identify the participant with a particular segment and to glean critical information regarding the way a segment member would respond to a particular marketing situation. Furthermore, it must provide stylistic feedback that reflects the effect of different participant response styles and student moderator interventions.

### Delivering Qualitative Information Regarding Participants

As noted earlier, each participant is identified as belonging to a particular VALS-2 segment. With this identification comes an
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“inventory” of characteristics. These are extracted from the segment descriptions listed earlier. The inventory includes five different categories of characteristics. These categories remain the same for every segment, but the specific characteristics within each category change. Each category includes both general responses and specific behaviors. For instance, the inventory for “Fulfilleds” would include:

1. **Self Orientation.** General: “guided by beliefs or principles.”
   - Specialist: “conservative in my attitudes and professional in the way I do my work,” “supportive of charities,” “a good parent,” “someone who treats other people with respect.”

2. **Level of Resources.** General: “highly educated,” “affluent,” “calm,” “self-assured.” Specialist: “holder of a graduate degree,” “making more than $60,000 per year,” “not get upset when things get hectic at work,” “not get bothered when someone disagrees with my opinion.”

3. **Lifestyle.** General: “family-oriented,” “well informed about current events,” “receptive to new learning opportunities,” “apt to structure leisure activities around the home.” Specialist: “phone relatives,” “barbecue outdoors,” “do gardening,” “do activities with the kids,” “belong to business organizations,” “belong to environmental organizations,” “belong to civic organizations.”

4. **Personal Aspirations.** General: “content with career,” “content with family,” “content with station in life.” Specialist: “not looking for another job,” “would marry the same person if I had it to do again,” “like life the way it is.”

5. **General Consumption Style.** General: tend to purchase items that are “not extravagant,” “conservative,” “functional,” “durable.” Specialist: “drink herbal tea,” “subscribe to several different magazines,” “spend money on modern home appliances,” “own a multi-purchase camcorder.”

While the inventory for each segment is limited by the information it contains, the simulator creates virtually an infinite variety of responses by creating a set of synonyms for each inventory characteristic. For instance, the simulation would not say “guided by principles and beliefs,” since those are the exact words used in the segment description. Rather, it would say, “do what I think is right rather than what others think I should do” or “tend to act in ways that are consistent with my values.”

Each respondent statement is broken down into three parts: **subject** (“I,” “People like me,” “My kind of individual,” etc.), **verb phrase** (“... [am/are/is] happiest when I [am/does] ...,” “... [[finds/are/are/is] that I usually [am/does] ...,” “... [try/tries] to [be] etc.”), and **object phrase** (from the list of segment characteristics shown above). Statements are formed by using various combinations of subject, verb, and object. Combinations that address the particular topic being treated are selected at random without replacement, thus ensuring that no statement will be duplicated during a particular focus group session.

Topics are determined either by the statement of the preceding respondent or in response to a moderator question or probe. For instance, if one respondent says, “I tend to do what makes sense to me” (a “Fulfilled” “self-orientation” statement), the next respondent might say, “I try to be guided by whatever is socially appropriate” (an “Achiever” “self-orientation” statement). If the moderator followed this with a “clarification probe,” the respondent might say, “People like me are happiest when they can see that they are respected by the people around them.” The follow-up statement was merely another version of the same aspect of self-concept. An “illustration probe” would evoke a specific rather than a general response, such as “I like to be seen as someone who dresses appropriately by my colleagues at work.” An “elaboration probe” would trigger an expansion of the subject, evoking another aspect of self-concept, such as “My kind of individual finds that she seeks consensus when making decisions.”

The simulation keeps track of what items from a respondent’s inventory have been revealed. When a respondent has depleted the items within a given category, he or she will automatically move on to another category of responses. The moderator can also trigger a movement from one category of response to another by using a “question” intervention.

The actual responses of group members depend on a series of priority rules. Once a member makes a comment, his or her priority will automatically drop. Thus, all else being equal, group members will take turns responding. But the priorities are also influenced by other factors, such as the type of statements made by previous respondents, the type of moderator interventions, and the effect of prior group dynamics.

The typical focus group will run for about two hours. Since the simulation does not operate in real time, each statement and intervention is assumed to take one minute. The student is provided with a running clock to facilitate the timing of interventions. If the group is allowed to exceed the two-hour time limit, respondents will become passive and unresponsive to interventions, thus decreasing the performance of the group dramatically.

Consistent with normal focus-group practice, the simulation provides a transcript of the entire session upon request of the student moderator.

**Modeling the Effect of Different Participant Response Styles and Student Moderator Interventions.** The effect of participant styles and moderator interventions is reflected in the interaction of a series of status indicators, respondent input variables, and moderator input variables. The effect of these interactions depends on a series of rules. While the rules are too numerous to report here, many of them can be inferred from the nature of the variables from which they are constructed.

**Status Indicators.** At any given time, each respondent is in either a “focused” or “sidetracked.” If focused, the respondent will make statements that are consistent with the topic being discussed, while a sidetracked respondent will either make further sidetracking comments (as in the case of a Disrupter), will make random comments, or will simply refrain from making comments unless invited.

Each individual will also be “active,” “normal,” or “reluctant.” A “active” status indicator will increase the priority indicator determining who will make the next statement, while a “reluctant” status will have the opposite effect. And “normal” status will have no effect on the priority rating.

Finally, each respondent will be in either an “independent” or “dependent” status. A respondent in
“dependent” status will not make a statement unless “invited” by the group moderator, while an “independent” will make statements independently when the priority indicator indicates it is appropriate. Respondent Input Variables. Respondent statements can be “normal,” “too frequent,” “moderating,” “interpreting,” “challenging,” or “disrupting.” The effect of these follows the general guidelines discussed earlier in conjunction with different participant response styles. The nature of the statement, however, can be influenced by moderator interventions as well as the respondent’s style.

Moderator Input Variables. The moderator-input variables are determined solely by the student moderator. The alternatives consist of a “question,” “clarification probe,” “illustration probe,” “elaboration probe,” “pause,” “redirection,” “invitation,” or “continue,” as discussed earlier.

When the effect of an appropriate moderator intervention is to correct any negative factors, such as a status of “sidetracked,” “active” or “reluctant,” or “dependent.” When negative factors are corrected, the group will function according to “normal” priorities, with each respondent taking equal turns participating.

Providing Objective Criteria for Evaluating the Quality of Student Participation.

The simulation provides two indicators of how well students perform in the simulation. The first, and most obvious, is the degree to which the students are able to identify the VALS-2 segments reflected in the focus groups. The instructor will have access to the actual segment affiliation of each respondent. The students may be evaluated both on their ability to correctly identify the respondents participating in their groups and in their identification of the total set of types, generally requiring different focus group sessions.

The second performance indicator is the effectiveness of their moderator interventions. This is indicated by the amount of deviation from “normal” in the participation priority indicators. This figure will also be provided by the simulation.

SUMMARY AND CONCLUSIONS

Simulating qualitative research constitutes both an important and difficult step in the development of realistic business simulations. This paper takes a first step. The simulator design we have discussed is limited in several ways: First, it requires students to select their moderator interventions from a pre-established list, thus limiting the amount of creativity they can exercise in their focus group leadership skills. Second, respondent statements are limited to single sentences of a predetermined format. This is clearly unrealistic. Third, the group interaction rules are necessarily oversimplified. And finally, the range of respondent characteristics that may be elicited by the interview is limited to a predetermined set. This too is unrealistic.

Notwithstanding these limitations, we believe design of the simulation represents a major step in the enrichment of the business simulation game discipline. It has a host of applications, from providing research generators to be used in conjunction with existing games to the development of stand-alone exercises for courses in research and consumer behavior.

The design principles developed in this paper can no doubt be developed and refined to overcome many of these problems. This paper, then, describes a first attempt at a new approach that will hopefully attract continuing attention from simulation game designers.

REFERENCES


