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# Using Symbols and Shapes for Analysis in Small Focus Group Research

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## Using Symbols and Shapes for Analysis in Small Focus Group Research

### **Abstract**

Substantial literature exists to support the growing importance of focus group research, having been around for decades. Its ubiquity under the scholarship radar is not in doubt while the analyses of findings commonly seen are scholarly and significantly sophisticated. However, these analyses have been found to be limited in scope for fresh adopters of the focus group method, non-literate beneficiaries of research findings and business people who are critically averse to lengthy textual statements about outcomes. This article introduces the use of symbols as a means of analyzing responses from small focus group discussions. It attempts to demonstrate that using symbols can substantially assist in the prima facie determination of perceptions from a focus group membership, its patterns of agreement and disagreement, as well as the sequence of its discussions.

### **Keywords**

Small Groups, Focus Group Discussions, Analysis, Prima Facie, Symbols, Shapes

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### **Acknowledgements**

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## Using Symbols and Shapes for Analysis in Small Focus Group Research

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*Substantial literature exists to support the growing importance of focus group research, having been around for decades. Its ubiquity under the scholarship radar is not in doubt while the analyses of findings commonly seen are scholarly and significantly sophisticated. However, these analyses have been found to be limited in scope for fresh adopters of the focus group method, non-literate beneficiaries of research findings and business people who are critically averse to lengthy textual statements about outcomes. This article introduces the use of symbols as a means of analyzing responses from small focus group discussions. It attempts to demonstrate that using symbols can substantially assist in the prima facie determination of perceptions from a focus group membership, its patterns of agreement and disagreement, as well as the sequence of its discussions. Keywords: Small Groups, Focus Group Discussions, Analysis, Prima Facie, Symbols, Shapes*

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The focus group study method, a classic example of group-based, qualitative research, has been in existence for decades. Its popularity is demonstrated from time to time by scholars who adopt it to collect experiential data for academic use (Krueger & Casey, 2000). Researchers would set up groups with a clear focus on a subject to determine discussants' opinions, beliefs, attitudes, perceptions and so forth on an issue, product, service, idea, advertisement and the like. Technology vendors or their agents use the system in usability tests, where motivations of users and potential users of the particular equipment or systems are determined. Contrary to the popular belief, the popularity of focus group discussion (whether it takes place physically, on telephone or online) extends beyond the appraisal of reactions and interactions as it can also be used to turn an idea into substance or product.

In spite of the increasing popularity of the qualitative approaches, researchers do believe that regular investigations are indispensable to their appraisal (Khan & Manderson, 1992, p. 65). Criticisms remain with the way focus group data are computed and reported. Inadequate design and haphazard reporting are two of Krueger's (1993) worries, corroborated by Carlsen and Glenton (2011). Another area that attracts attention is the use of group-based research data to end users. The need for a new pathway in this regard is stressed by Agar and MacDonald (1995, p. 78) who support a close analysis of transcripts and Wilkinson (1998, p. 197) who argues that a considerable potential exists for the development of a new and better method of analyzing focus group findings. Furthermore, Krueger (1994) places emphasis on the community: "The focus group interview taps into human tendencies... We are a product of our environment and are influenced by people around us" (pp. 10-11). It is increasingly becoming an issue that while scholars place so much emphasis on the discussion community, less prominence is seen associated with target users of the findings from group-based studies that constitute an integral part of that community. The analyses of findings are commonly elitist and have high end targets usually in scholars who are well known adopters of the method. Potential archetype beneficiaries of the focus group system - the Sub-Saharan rural farmers who have no *lingua franca* advantage, new adopters of the method and business men and women who are usually unenthusiastic about lengthy textual analyses - would need to be

motivated by providing them with a simpler way of understanding and assimilating the findings from a focus group discussion in a short period of time.

As a way of making the analysis of focus group findings more attractive, some writers argued in favor of the grid technique, for easy identification of constructs and organization of themes (Boyle, 2005; Dillon, 1994; Dillon & McKnight, 1990; Higginbottom, 1998). The technique, especially the repertory grid, enables the researcher to identify a set of observations from the entire discourse, rated according to the constructs that are elicited by the discussants and in line with the purpose of study. The fact that interviewees' rating seems to arrive at a precise description, "uncontaminated by the interviewer" (Hair, Rose, & Clark, 2009, pp. 52-53), is widely acknowledged as a plus for the grid system, which the use of symbols further exemplifies. The exactness of expressed opinions enables symbolism, and by extension validity of the process, such that each point articulated can be easily represented by one easily identifiable symbol, thereby making the symbolist a crucial role player in the focus group research system.

Findings are computed on "a grid in the form of  $n$  rows and  $m$  columns, which record a subject's ratings, usually on a 5- or 7-point scale, of  $m$  elements in terms of  $n$  constructs" (Dillon, 1994, p. 76). The flexibility of the technique is also publicized as very appropriate for the appraisal of environmental perceptions as it "can provide a rich variety of detailed data" (Potter & Coshall, 1984, p. 315). The grid technique involves some statistical and computerized documentation in the form of cluster and principal component analyses, which compel the potential beneficiaries of findings not only to be highly literate but also numerate, thereby underscoring its quantitative nature of data. The use of symbols for small focus group discussion analyses being proposed here is not opposed to the grid system in terms of frequency counts, visual activity, and content analysis features. It is at variance with the sophistication, elaborateness and complexities that characterize the analysis of most focus group discussions on which this paper is advocating a rethink. Symbols and shapes significantly lessen these challenges as they are used to describe outcomes of the discussions, thereby creating a clearer picture of the expressed views.

### **Focus Group System: A Review**

In a focus group system, discussants who supposedly have the knowledge of the subject matter are brought together usually by a coordinator who moderates the group's activities to ensure proper harmonization of the discussions that take place in a no-holds-barred environment. Two moderators may be needed to monitor the pro-con perspectives of the issue at stake; especially in the fencing-moderator style in which the moderators deliberately take opposing sides. Marketing agencies often invite their clients to witness such focus group discussions and may even be asked to participate, either as discussant or second monitor. This implies that "the role of the observer must be explicitly analyzed and treated as part of the system" (Parsons, Bales, & Shils, 1953, p. 96). This is done to seek clients' input and provide the proof that such discussions actually took place. There is no model to follow in the composition of the discussants, but the specificity of intention required to complete the process (Krueger & Casey, 2000) is crucial and this is predicated on the purpose of the research.

The number of discussants, according to focus group enthusiasts, can be anywhere from four to 15. There is hardly any model to follow in determining the size, though there are claims that the larger the size the more robust the quality of data generated (Fern, 1982). But the view also exists that the larger the size of the group, the more chaotic the discussion could become. This is easily demonstrated in *letters to the editor* or replies to online stories which can be as many as 10,000! Responses to online stories may not be a perfect example of focus group discussion, owing to the difficulty in controlling for sampling biases. But they have easily

identified trappings that make them qualify as such. One, is the fact that, the title of story that is being responded to, constitutes the focus of discussion. There is also the editor of the online publication acting as the moderator.

Arguments in favor of larger groups seem not to take into cognizance the latent parameters of the equation such as the level of interest of each discussant and how impassioned he or she is in the discussion (Swenson, Griswold, & Kleiber, 1992). For instance, a professor who needs data via a focus group invites a junior academic in his department to join the discussion. The junior faculty may not be interested but he is asked to be part of the group simply because the convener of the discussion is a *senior colleague* who is likely going to *take decision on his or her promotion application* in which *respect* for colleagues is part of the criteria (for promotion). Rejecting an invitation from a professor might not be a wise decision. This argument may sound simplistic, but the fact remains that junior and mid-career scholars the world over have the habit of pleasing senior colleagues and aligning with the wishes of their professors. This reiterates the issue of how natural or constructed the composition of the discussants is especially when sensitive issues are for discussion (Leask, Hawe, & Chapman, 2001).

The number of discussion items for a focus group is not always specific. Krueger and Casey (2000), however, think that curtain could be drawn when opinions are reaching the saturation point - when there is nothing new to observe and gain from the discussions. Scholars are yet to agree on how that saturation point is reached. Does the moderator ask the same question over and over again in the same focus group session? Or should that same question be repeated in a freshly constituted group? These questions are important because it is provable that asking the same question in the same session again and again does not always guarantee same responses (let alone in another session) as the criterion of answers to a question is a function of many predictors, including the availability of answers to such question, willingness to tell the truth or supply the correct answers to the question, mood of the respondent, environment of the respondent and so forth.

The design of focus group interview questions is vital to the success of the research. In order to generate quality response, researchers, including Krueger and Casey (2000), also opine that items on the questions list be understandable, have the desired clarity, open ended, contain easily identified issues, not hyperbolic (when a question does not target a clear answer) and easily recited, among others. While these prescriptions are generally acceptable, the sequence of items on the moderator's list is an issue. According to Krueger (1993), a session opens with discussants introducing themselves while spending one minute or less each, followed by one or two introductory questions in not more than five minutes each. Next in line are one or two transfer questions for between seven and eight minutes to act as bridge between the introductory and key questions. At the point of answering key questions midway into the session, participants are allowed ample time of between 10 and 15 minutes since this is where the core issues of the research are discussed. Similar process is repeated for specific questions before the closing and final question which each discussant answers for between three and five minutes.

The foregoing sequence smacks of truism with scholars especially when it is viewed from the lens of the universal *introduction – body – conclusion* progression. But it is important to note that in the archetypical social research, objectives are set and usually transposed into research questions. Such questions constitute a succession of related issues which combine to answer the main question. Moreover, when answers or findings are available, they are also presented in the same order that the questions appeared. It seems reasonable and logical, therefore, that focus group items are presented in the same sequence of the research questions. Answers to these questions have sophisticated analysis, which is accepted; but this is acceptability with limits. If they are accepted, by what set of people? The perceptions of focus

group discussants should therefore be demonstrable as a way of making them attractive to a wide array of persons. The way scholars and focus group discussants are “research partners and social investigators” (Moreno, 1954, p. 182) is the same end users and beneficiaries of findings are part of the research community. Using symbols to analyze findings for better understanding can be a way of making them feel they belong in that community.

### **Challenges of the Focus Group System and the Problem Statement**

The adoption of the focus group system presents many challenges for the researcher. The experience and dexterity, which a new adopter of the method lacks, no doubt helps in minimizing these challenges. The type of challenges that may arise depend on the purpose of that research and the environment in which that research is taking place. However, there are problematic universals in focus group systems one of which is the popular statement that the findings of a focus group discussion are at best subjective or that the objectivity profile is severely limited when compared to other research methods.

The subjectivity concern is not limited to discussants but also the moderator or researcher. His decisions have implications for the validity and reliability of the process (Lunt, 1996, p. 80). For instance, marketers in their chase for accounts may decide to select members of a focus group that will say things that please people as a way of securing or retaining clients' accounts. Therefore, subjectivity actually starts in the membership composition and naturally progresses to the discussions. This is really an issue because such a setting is moderator-dependent and therefore questions the validity of the whole exercise. It is such that even if the researcher objectively accounts for the findings of the group discussions, the core value of the whole exercise has been negatively affected at the beginning. In this case, the focus group discussion has been turned into a set of monochromic sentiments. This is one of the reasons why some advertisers insist on having representatives in the membership of such focus group discussions. The investigator triangulation process, utilizing two moderators, may be needed if there is little time left for decisions to be made on the conclusions of a focus group. This is often the case when there is little or no time to transcribe the recorded proceedings of the group. In a typical country with a dictatorial regime or some developing countries, the reliability of focus group discussions on political issues may be limited. Participants may hold back on their responses or vocalize opinions that favor the government of the day. The scenario looks better if the anonymity of the discussants is guaranteed. Unfortunately, the discussants do not usually have such luxury under authoritarian systems.

According to Morgan (1997) the focus group system can be adopted as an independent research method or used to close gaps that may exist in quantitative studies. It can also be used as one of the multiple methods of research especially when the investigation involved is multifarious in terms of perspectives. In each case, the analysis of focus group discussion, whether at the individual discussant or group level, presents some challenges. One of these, and the concern this study, is the difficulty in arriving at the common views of the group and presenting those views in a manner that can be understood easily by the target audience.

### **Objective and Significance of the Study**

This presentation attempts to float a model of representation of findings from a focus group discussion by using symbols or shapes that would enable easier determination of the group's perceptions. The symbols are used to represent points of agreement in a sequential order of occurrence, starting from the highest frequency to the lowest. Many fresh adopters of the focus group system have the problem of concluding on what the group represents on a particular issue. It is commonplace to arrive at a conclusion even when it is obvious that such

conclusion is not a true representation of the group's views. Representing shared views has become a concern and therefore a system of analysis would be needed to properly situate what the shared views of the focus group are and how strong those views are in a *prima facie* determination sequence. Besides, this process is also significant in that it helps such new adopters of the method to represent the cogent points for easier identification in such a manner that exposes the findings in the order of importance.

This presentation offers an uncomplicated way of analyzing the salient points in a discussion with the use of symbols and shapes, in line with the set objectives. By so doing, it facilitates the purposeful use of research findings in real situations, thereby filling a gap.

This model is recommended for a small group, which has been conceptualized as “an especially effective agent of direct societal power- a means by which collective strength is made real and consequential for individuals” (Harrington & Fine, 2000, p. 314). This limitation is reversible if further studies are conducted to determine the suitability for large focus groups systems. Nevertheless, the possibility exists that the use of symbols and shape to explain the findings of large focus group discussion outcomes may become unwieldy and become unmanageable. But by using a symbol to represent an idea that has been expressed by a member of the small group, identification of each expressed idea becomes easier, thereby simplifying the analysis of data and making the findings convincing and compelling.

What is more, sometimes the targets of the findings of the focus group analysis are stark illiterates whose profile of illiteracy is such that they cannot even read or write in their native language let alone a foreign one. It is also the case that their contribution to the economy is significant, thereby making them targets of research activities. For instance, southwest Nigeria holds about half the nation's economy and has the highest literacy rate. In spite of the relative advantages over other five geopolitical zones of the country, commonly seen are less educated farmers and artisans who communicate mainly in Yoruba dialects and find it difficult to communicate in the universal version of the language not to mention English the *lingua franca* in Nigeria. The use of symbols offers a good alternative to communicate the findings of a research to such people.

It is also important to know that the symbols may not be only in graphic form. It can also be practically demonstrated to the target audience, whereby the symbols are molded or procured where such molds are already available to demonstrate the shared views of the discussants. Such molds are better utilized in the plastic form, rather than in concrete, plank or metal form.

### **Scope of the Study**

Scholars have identified several factors in a small group research. Social dynamics of group development – “forming”, “norming”, “storming”, and “performing” (Tuckman, 1965; Tuckman & Jensen, 1977, 2010) – are capable of influencing group decisions in situ and overtime. Factors or forces directly unrelated to content also influence discussions at the micro-scale level (McGregor, 2005, p. 430). Besides these, the content of discourse can also be affected by the group structure (Horwitz, 1953, p. 312; Cloyd, 1965, p. 395) and the processes of communication in which it is conveyed (Burgess, Limb, & Harrison, 1988, p. 458) all with profound implications. Small group studies constantly face the criticism that they are of little interest to researchers (Strodtbeck, 1954, p. 653) in the face of the purported status inconsistency hypothesis (Crosbie, 1979, p. 112) that characterizes the small group setting. The concern of this presentation is the analysis end of the discussion of a small focus group setting. This paper limits itself mainly to the stage of analysis after decisions and outcomes of group discussion have been placed on record. Therefore, the “less intensive” (Carey, 1995, p. 126)

aspects that deal with identifying, coding and categorizing themes (Fox, 1993, pp. 29-30; Morrison & Peoples, 1999, pp. 62-65) in small group data are the concern in this presentation.

### **Symbolic Representation of Perceptions: Conceptualization and Theoretical Considerations**

Analysis of focus group findings using symbols is a departure from the routine textual recording of transcriptions. While letters are actually a kind of symbolic recording of a thought or idea, they are generally regarded as words. A break in this routine creates a fresh impetus for a more symbolic way of idea representation; first, for fresh adopters of the focus group research method; second, for business people who are averse to too many words; third, for those who are not literate or numerate; and fourth, for children who may not understand the way of textual analysis.

Images speak more powerfully and succinctly than words and a single symbol is able to capture phenomena more than many words. Such disciplines as mathematics and sciences would be extremely cumbersome without the use of symbols or shapes. Software applications rely heavily on icons and common widgets to function. Many companies, organizations and countries use logos, trademarks, and crafted graphics to represent their mission, vision and core values. According to Butz (2009, p. 779; Billig, 1995), symbols are used by countries as agents of social and psychological change. Many citizens would easily condemn the act of using such symbols as flags as dusters (Haidt, Koller, & Dias, 1993, p. 784; Turiel, 1983). The usage of symbols to represent ideas has helped considerably in problem-solving, decision and policy-making. In the words of Lay (1980):

Symbols are indeed filters through which we screen our experiences. More basically, awareness, too, is mediated by symbols. When we take notice of something, we are already oriented by our symbol system... The habits of language and the symbol systems of our support communities predispose us to a selective awareness and exploration of our world. (p. 181)

In children, symbolic representation of ideas and situations is extremely popular. Signs and symbols are regularly used by elementary education teachers. Children are being taught to color pictures as a way of understanding the world around them. Talk to children is better demonstrated with signs, shapes, pictograms and symbols than words. Visual tools present instructors the teaching dynamics that make for better understanding of the subject matter by pupils. With regard to adult education, use of symbols has been found to be useful in situations where the students are new to the language in which they are being taught. As words are being pronounced in the new language, a concomitant presentation of symbols, shapes and signs to represent those words are created. The use of symbols and shapes in describing a point removes the problem of ambiguity or indistinctiveness. Each symbol represents a distinct contribution in the discussion; and the task of accounting numerically for the points made becomes easier.

A symbol is the mediator between a perceiver and the complicated issue or thing to be perceived. It is here contextualized as a dual purpose intermediary that elicits the value that the perceiver accords what is to be perceived. It is an entity that "someone intends to stand for something other than itself" (DeLoache, 1995, p. 109).

Using symbols is one way of determining, at a glance, the level of agreement or disagreement between the discussants. The audience of research would not have to wait to read all the analysis before determining what the findings are. In this wise, it is not only the beginner that reaps the benefits of a quick determination. Business people who have little or no time for lengthy analysis would find this system highly beneficial. The use of symbols also enables the



determination of the volume of outcomes. This is done simply by counting all the symbols that have been used to represent the points made. This is an addition to the fact that one is able to determine which points were made most and which points made the least and by whom.

The use of shapes in analyzing focus group discussion outcomes presents to the target beneficiaries of this model – *illiterates, fresh adopter of the focus group research method, businessmen on the go* and *children* - cognitive elaboration at the automatic level. Cognitive elaboration (Buijzen, Reijmersdal, & Owen, 2010; MacInnis & Price, 1987; McGill & Anand, 1989) relates to perceptual reasoning, which is the extent to which an audience understands, forms judgment and takes decision about the stimuli whose information has been processed through the deployment of its (audience's) cognitive resources. Therefore, the manner in which information from the visual stimuli is converted into a form that can be processed mentally and how the codes that form in the memory are stored, as well as how they are retrieved, are very important at this point. The characterization of cognitive elaboration into three levels - systematic, heuristic and automatic – is useful to the conceptualization of the use of shapes to map perceptions. Systematic persuasion processing is basically epistemological, long drawn and elicited from a robust, self-driven motivation to process the information, having fully perceived the symbols. Unlike the scholar, the foregoing categories of audience lack the fortitude for this extensive action. Systematic persuasion strategy involves the audience's invention of cognitive responses in support or against what the symbols or shapes stand for. The knowledge and judgments of the audience are therefore mediated by the extent to which it can identify and elaborate on those claims.

The heuristic approach supports a modest level of cognitive elaboration. The processing here is less tasking epistemologically as a result of the unelaborated nature of the symbols. This means that the information proposition comprehensively answers the ethical, pathetic and logical curiosities (Boley, 1979) within the context of the audience's learned and imbibed knowledge structures. Some scholars (Chen, Duckworth, & Chaiken, 1999; Petty & Cacioppo, 1986) have also discussed the systematic and heuristic strategies as a dual process strategy, stressing that judgments can be formed on the basis of more or less cognitive elaboration. The automatic persuasion processing strategy is a minimalist approach, involving a negligible profile of cognitive elaboration in which judgment is effortlessly or almost automatically concluded. The use of symbols is expected to make the processing become *automatized* (Grunert, 1996) which enables the audiences (in this case the four categories listed) to figure out the symbols without distractions.

The symbolic representation model of focus group data analysis that this paper is proposing aligns in some way with the representation, referential and transformational processes as contextualized in the Dual Coding Theory (Paivio, 1990; Pyke, 2003, p. 408). This theory posits a two-fold pathway way through which *logogens* (verbal) and *imagens* (non-verbal, e.g., visual) stimuli (Paivio, 1978, 2010, p. 209) that transmute into representations in the human mind up, can be processed by the corresponding mental codes, in a manner that makes the resultant information amenable to storage, retrieval (King, 1986, p. 47) or usage. This means that physical and verbal attributes of a symbol (when "verbal" means calling out the name) which are processed distinctly in the mind create a good potential to aid recall and remembering.

### The Setting

Adequate preplanning is crucial to a successful focus group analysis. It starts with a proper coordination of the focus group to ensure that its activities are well documented. This study is working with a focus group comprising seven members who were randomly selected from among the participants at the close of a yearly software developer conference held in an

academic environment. They were asked to discuss an issue of which little is known about in Nigeria. Three items were discussed and the transcripts mandatorily produced. Those who care less about transcripts in a setting like this would seem to have had years of experience, or are experts in the use of the system. But for beginners who are among the main target of this presentation, it is important that a permanent record of the discussion is produced in order to facilitate the analysis of the data using symbols and shapes, the usual excuse that transcripts are not always perfect notwithstanding. In some institutions around the world, junior academics are also asked to provide proof for their analyzed data and transcripts.

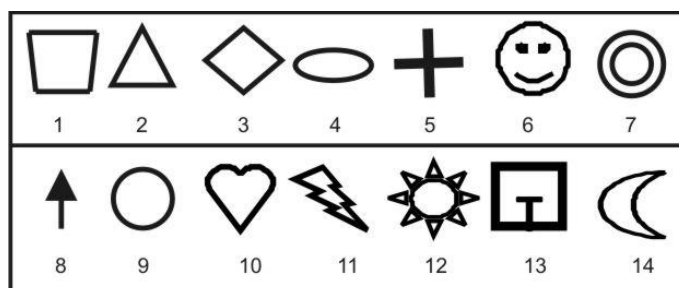
The topic “Internet Adoption in Nigeria” was floated for discussion by five persons (R1, R2, R3, R4 and R5) – three males and two females. The objective was to determine the level of internet adoption by Nigerians and how to improve on it. All the discussants had a good idea of Roger’s (2003) categorization of innovation users as early adopters, early majority, late majority and laggards, but that is inconsequential in this case. The discussion was to determine if internet adoption in Nigeria was high or low, the reason for the answer in each case, and what could be done to get more people connected to the internet. To this end, the objectives of the research were transposed into the following three items:

- Rate internet adoption in Nigeria high, low or average.
- Give reasons for your rating.
- What can be done to get more people connected to the internet?

After each discussant’s presentation, he or she was asked to summarize precisely the points made to enable a proper capturing. The discussion exercise lasted 31 minutes and the time spent was judiciously spread over the three items. In order to make the discussion more comprehensive, the moderator, after each speech, would ask the speaker to indicate if he was in support of the any point raised by the previous speaker. This helped substantially to identify areas of agreement and disagreements.

### The Symbols

Any symbol can be used to represent shared ideas so long as it is suitable. No particular symbol is sacrosanct or imperative. However, it is important that whatever symbols used must be such that they can be understood by the audience of the findings of the research. Familiarity with the symbols is therefore a key factor in the choice of symbols. In this presentation a set of well-known symbols are used and they are identified in the following illustration.



**Figure 1: Representation symbols for the findings of focus group discussion.**

Below is the list of representation symbols as contained in Figure 1.






| S/N | Symbol's name    | S/N | Symbol's name  |
|-----|------------------|-----|----------------|
| 1   | Trapezoid        | 8   | Arrow North    |
| 2   | Triangle         | 9   | Circle         |
| 3   | Diamond          | 10  | Heart          |
| 4   | Ellipse          | 11  | Lightning Bolt |
| 5   | Cross            | 12  | Sun            |
| 6   | Smiley Face      | 13  | Textbox        |
| 7   | Doughnut (Donut) | 14  | Moon           |

**Table 1: Textual identification of the symbols used to represent the findings of the focus group discussion as displayed on Figure 1.**

The target of the findings of a focus group discussion must be familiar with the symbols used for analysis as limited knowledge can limit a proper understanding of the analysis. This is why it is important that the environment of the audience of the findings should be taken into cognizance before symbols are selected.

### Item 1: Rate Internet Adoption in Nigeria: High, Low or Average

To the first item – *Rate internet adoption in Nigeria as high, low or average* – the first discussant rated high, the second low and the third average. The fourth did not rate, saying: “I find it difficult to rate.” The fifth also did not rate. The answer from the first respondent is represented by trapezoid; second as diamond; third as circle, fourth and fifth both as lightning bolts. These outcomes are presented in the following table.

| S/N     | R1  | R2  | R3  | R4   | R5  |
|---------|---|---|---|--|---|
| Symbols |  |  |  |  |  |

**Table 2: Textual identification of the symbols representing the responses to Item 1.**

### Item 2: Give reasons for your rating.
















The first discussant explained why he rated high. The following points were the rater's justification for the high rating. Symbols were selected to represent the responses:

- Many people use mobile phones that enable high internet access (triangle).
- Level of literacy is on the increase which enables the awareness of internet (cross).
- Many businesses are now conducted on online, which makes the use of the internet necessary or compulsory (ellipse).
- Internet penetration is high owing to the existence of social media networks (sun).

The second speaker who rated low (diamond) had only one reason: “I don't believe literacy is on the rise as claimed to justify any high internet access” (heart) while the third who rated average did so because of the following:

- The number of those connected to the internet is low compared to the huge population of Nigeria (donut).
- Some Nigerians think America and Western countries that control most of the internet may use it as an instrument of domination (textbox).

The fourth and fifth contributors gave the same reason for not rating, which is the fact that they do not have access to the statistics (moon) to enable them make an informed judgment. However, the fifth rater added that in spite of his inability to rate, he agreed with the second point made by the third rater that Americans control the internet and that they have the tendency to use as an instrument of domination, especially when the situation involved is not in their favor (textbox.) Answers to Item 2 - *Give reasons for your rating* –and their symbols are presented in the following table:

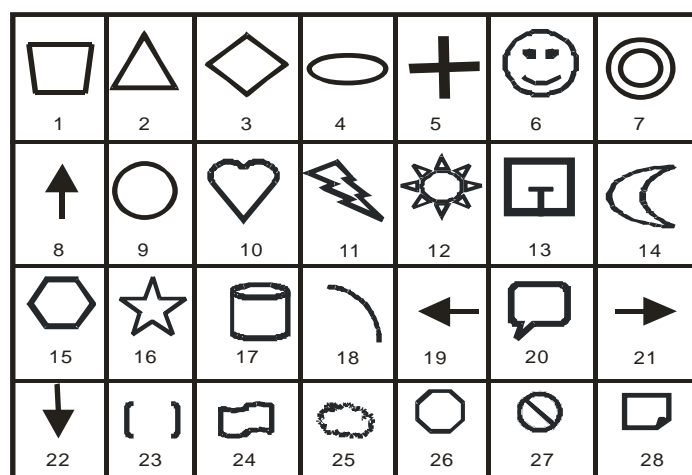
| S/N    | Rater 1   | Rater 2   | Rater 3  | Rater 4  | Rater 5  |
|--------|---|---|--|--|--|
| Item 1 |    |  |   |  |   |
| Item 2 |    |  |   |  |   |
|        |   | -   |  | -  |  |
|        |  | -   | -  | -  | -  |
|        |  | -   | -  | -  | -  |

**Table 3: Explain the reason behind your rating**

A close up on the number of symbols shows that there is only one symbol left unused (arrow north). This one symbol obviously would not be enough to cater to the answers that the discussants were going to give for the item three - *What can be done to get more people connected to the internet?* At least five more symbols would be needed, assuming that the five discussants gave only one point each. This shortage could easily be resolved by creating more symbols and adding them for use as shown in Table 4 and Figure 2.

| S/N | Symbol's name | S/N | Symbol's name  |
|-----|---------------|-----|----------------|
| 15  | Hexagon       | 22  | Arrow South    |
| 16  | Star          | 23  | Double Bracket |
| 17  | Cup           | 24  | Punch Bag      |
| 18  | Arc           | 25  | Cloud          |
| 19  | Arrow East    | 26  | Octagon        |
| 20  | Callout       | 27  | No             |
| 21  | Arrow West    | 28  | Folded Corner  |

**Table 4: Newly added symbols**



**Figure 2: Display of the first and new sets of symbols**

In response to Item 3: *What can be done to get more people connected to the internet?* R1 gave the following three points:

- There should be a policy by government or relevant government agencies that encourage people to connect to the internet (arrow east).
- Provision of more affordable internet-enabled mobile handsets can lead to more access to the internet (cup).

R2, in his response agrees with R1 that government's role is very critical in making more people connect to the internet (arrow east) while R3 had this to say:































- Since most people seem to connect using their mobile phones, telecom service providers should lower the cost of data to enable more access (arrow west)
- Connecting to the internet requires some level of education. As the level of education increases, chances are high that internet penetration will correspondingly increase (folded corner).
- Government should also encourage people in this regard (arrow east).
- Bandwidth should be increased for better internet access (arc).

R4 in his response also said that government had a role to play in ensuring the citizens have more access to the internet (arrow east), adding that as education improves there would be more need for internet access (folded corner). Moreover, according to him, the availability of more mobile (telecom) connection would lead to more internet access (arrow west). R5, in his contribution also opined the following:

- Government also has a role to play in ensuring more access of the citizens to the internet (arrow east).
- Electricity is important. The more electricity citizens have the more likely the internet connection will be (hexagon).
- Non-governmental organizations can do a lot by ensuring that more people have access to the internet (cloud).
- Urbanization affects internet connection. More urbanization, more internet connection (punched bag).

- Prosperity of the citizens can make them connect to the internet (callout).

The following table completes the foregoing outcomes with the symbols representing the points displayed. Symbols for Items 1 and 2 are also presented on the same table to enable a *prima facie* assessment.

| S/N    | R1  | R 2   | R 3   | R 4   | R 5   |
|--------|---|---|---|---|---|
| Item 1 |  |  |    |   |    |
| Item 2 |  |  |    |   |    |
|        |  | -   |    | -   |    |
|        |  | -   | -   | -   | -   |
|        |  | -   | -   | -   | -   |
| Item 3 |  |  |    |   |    |
|        |  | -   |    |   |    |
|        | -   | -   |   |  |   |
|        | -   | -   |  | -   |  |
|        | -   | -   | -   | -   |  |

**Table 5: Symbols Representing All the Responses to Items 1, 2 and 3**

### Synthesis of Discussion

Table 5 contains all the respondents’ answers to the three items. A total of 30 distinct contributions were made in response to the three items: Five for the first item, 10 for the second and 15 for the third. As noted earlier, this is one of the advantages of using symbols – a *prima facie* determination of discussants’ contributions. It is also easy to tell who made the highest number of points at first glance. R5 made the most points with eight symbols followed by R1 and R3 with seven points each. R4 made five contributions while R3 is at the rear with three symbols. The area of commonality of the discussion also enjoys a *prima facie* determination. The most noticeable on Table 5 is the five arrow east symbols, which is the agreement by all the five discussants to Item 3 that the government has a role to play in ensuring that more people get connected to the internet. In this case, as presented on Table 5, it is in place to conclude that the areas of agreements are less than those of disagreements. Moreover, the fourth and fifth raters could not rate because they *both agreed* that statistics did not exist to justify such rating. By compiling all the points made in the focus group discussion on a table, as done on Table 5, it is easy to describe the sequence in which the contributions were made.

The areas of agreements in the symbolized results educe some social-psychological issues. These are dysfunctional group dynamics that limit the *efficacy of individual evaluation* and stifles the *polarization of opinions* which are very useful if objectivity in the assessment of outcomes is craved. The social judgment theory (Hovland & Sherif, 1980) aptly captures this situation, stressing that attitudinal change over an idea or proposition occurs through

judgmental processes. Reaction, therefore, to a particular persuasive proposition, would depend to some extent on how one is favorably disposed toward that proposition relative to current thoughts and mindset. In that case, findings could be deemed not objective enough especially if sensitive issues that have serious implications are involved. A multi-disciplinary approach is advocated to elicit credible individual opinions for proper symbolic capturing of findings, as a way of “ensuring that groupthink does not take away the individuality, uniqueness, and independent thinking expected of respondents” (Boateng, 2012, p. 56).

## Conclusion and Recommendation

The use of symbols in representing is a natural extension of the innate human activity. Aristotle once said “the soul never thinks without an image.” This is a corroboration of the importance of the use of symbols in the analysis of focus group discussions as an extension of the innate human life. Most often, when humans think, there is a mental imagery that goes with that thinking. This is important in social cognition and when stimuli are created via graphics and symbols, reaction from perceptions are more significantly contrasted to when such stimuli don't exist. The use of symbols to analyze focus group perceptions is an extension of the humanity's affinity to images. But it is recommended here that the symbolic presentation should not task or put to the test the cognitive ability of the audience. Businessmen and women, unlettered persons, children and fresh adopters who the symbols target could find it disturbing if they manage to escape the complexity of the typical focus group analysis only to get caught up in cognitive disorientation caused by some complicated visuals. Such an experience could nullify the advantage that the system offers. This recommendation is reiteration of the point made earlier that the cognitive elaboration which relates to how an audience processes visual stimuli and comes up with a judgment about what has been processed, is effortless even to the point of being automatized or automatically concluded.

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