
8-27-2018

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Oladokun -. Omojola -
Covenant University, Ota, ola.omojola@covenantuniversity.edu.ng

Oscar Odiboh

Lanre Amodu

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Recommended APA Citation

Omojola, O. -, Odiboh, O., & Amodu, L. (2018). Opinions as Colors: A Visual Analysis Technique for Modest Focus Group Transcripts. *The Qualitative Report*, 23(8), 2019-2035. <https://doi.org/10.46743/2160-3715/2018.3349>

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Abstract

A major concern in focus group research is how transcripts are analyzed. One way of resolving the issues involved is the use of images, in the place of words or numbers, to capture discussion outcomes. This work upgrades the visual perspective and uses colors to represent discussants' opinions about leadership while the strength of those opinions is illustrated by some levels of transparency of those same colors. This model simplifies the expertise needed by enabling speedy determination of discussants' submissions even as the transparencies, in the form of shades or tints, reveal the gravity of those submissions.

Keywords

Focus Group, Opinion, Analysis, Hue, Colors, Shades, Tints, Tones, Qualitative, Transcripts

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Opinions as Colors: A Visual Analysis Technique for Modest Focus Group Transcripts

Oladokun Omojola, Oscar Odiboh, and Lanre Amodu
Covenant Univeristy, Ota, Nigeria

A major concern in focus group research is how transcripts are analyzed. One way of resolving the issues involved is the use of images, in the place of words or numbers, to capture discussion outcomes. This work upgrades the visual perspective and uses colors to represent discussants' opinions about leadership while the strength of those opinions is illustrated by some levels of transparency of those same colors. This model simplifies the expertise needed by enabling speedy determination of discussants' submissions even as the transparencies, in the form of shades or tints, reveal the gravity of those submissions. Keywords: Focus Group, Opinion, Analysis, Hue, Colors, Shades, Tints, Tones, Qualitative, Transcripts

Introduction

Scholars agree that analysis of transcripts is still a challenging aspect in focus group research (Bender & Ewbank, 1994; Chenail & Chenail, 2011; Knodel 1994; Scrimshaw & Hurtado, 1987) in spite of the rising profile of the qualitative method. Concerns still linger over the complex ways findings are presented in many areas of investigations. Future directions do point to the development of standards for reporting outcomes, but efforts put into creating standards merely rejigger or rearrange the analysis portfolio – *numeracy, narrative and hybrid* - to see if it could produce some kind of universal. This work is a creative deviance. It attempts a different way of analyzing focus group results using color graphics.

Nelson and Frontczak (1988) note that the reliability of the analyst is a critical factor in the authenticity of focus group results. In a study carried out to determine how analysts' identities impact on focus group transcripts, they found that analyses from different sources would not always produce the same results, a situation that calls for "greater theoretical and empirical work into procedures that resolve differences between analysts" (p. 47). The color model in this article can help minimize those differences.

Focus Group Analysis: A Review of Perspectives

The numeracy perspective argues that using numbers to interpret the findings of a focus group discussion is a good idea since it is quantitate-informed (Chenail, 1995). When a group discusses an issue, points are made. Counting those points naturally elicits numerical data, which are best articulated by mathematical and statistical formulae. To this perspective, a qualitative assessment merely embroiders a research finding rather than appositely describes it.

Numerate aficionados posit that some things must be numerically expressed in order to convey their real meaning (Arunachalam, 1990; Moul, 1982; Nelson, Loto, & Omojola, 2018). For instance, if a focus group of human resource managers is asked to debate which firm offers the best working environment, the likelihood is that the companies that are discussed will be ranked and when such ranking takes place, the best mode of presentation is the numerical way. This is more so if a firm commissioned the project. Sometimes, the contracting party is interested in

numbers appearing in the analysis with expectations on the way the discussants voted (Vicsek, 2010).

At the other end of the dialog are those who are not impressed with numbers. According to Zepeda et al. (1997) the focus group interview is used in order to understand “why opinions are held and to highlight issues researchers have not considered” (p. 292). Therefore, when an in-depth evaluation of an issue is needed, the focus group interview provides the basis to achieve results and it would not make any difference whether the research is phenomenological or theoretical (Calder, 1977). Reporting should take the form of a discourse (Richmond et al., 2009) or discourse analysis; drawing on its significant characteristics, since the issue at stake is either psychosocial or psychological in nature. This is corroborated by Ansay, Perkins, & Nelson (2004) who adopted the narrative option in their work on youth action and Kitzinger’s (1995) assertion that transcripts should be low on numbers.

In between the two perspectives are the mediators who argue that a little to the right and left offers the best way to move the focus group analysis forward (Carey, 1995; Vicsek, 2010, Young & Von Seggem, 2001), stressing that instances exist when the researcher’s targets are quantitative data and yet want to go the qualitative way in achieving that goal, especially when the issues involved are complex. For the hybrid school, data analysis becomes a qualitative as well as a numerical process.

In the words of Cox, Higginbotham, and Burton (1976), “If researchers generalize from the focus group interview results without further quantitative verification, they are on very weak methodological ground.” (p. 80) Another enthusiast, Schearer (1981), states that “while clearly not an all-purpose method, the technique appears to provide a useful adjunct to other methods” (p. 408) – a statement in line with that of Folch-Lyon & Trost (1981) who affirm that focus groups can be used to “complement quantitative surveys, offering an explanation of numerical data when the data interpretation is not apparent and a rationale for certain behavior or attitudes is sought” (p. 443).

Visual Approaches and their Challenges

The use of graphics for analysis is common in quantitative research. Pie chart, histograms, bar chart and the like are used regularly (Onwuegbuzie & Dickinson, 2008; Sloane, 2009) to depict frequencies and percentages in quantitative presentations. Besides analysis, efforts have also been made “to investigate how the shading of the options in a response scale affected the answers to the survey questions” (Tourangeau, Couper, & Conrad, 2007, p. 91). Stylistic elements (logos, fonts, diagrams, etc.) play a role as they give the questionnaire its overall “look and feel” (p. 93) while illustrating questionnaire items with photographs can affect the way the respondents react to those items (Couper, Tourangeau, & Kenyon, 2004). This is a validation by Gorn, Chattopadhyay, Yi, and Dahl (1997), that colors have some effect on people’s attitudes and feelings give satisfaction when they are harmoniously presented.

A few scholars have also used “graphics” to analyze focus group transcripts. Burgess’ (1996) believes he has developed a “visual” strategy which ensures a properly grounded analysis. After clean transcripts are produced, a discursive map is constructed on paper cut into 16.5 x 23.4 inches width and height respectively, which enables him to specifically identify themes, issues, personal stories and illustrate important quotes. “The ‘maps’ ensure that each group discussion is fully represented as well as facilitate strong visual comparisons between groups. The debriefing notes, combined with the ‘maps’ provide the basic material for drafting the final report” (p. 133).

Using grids to analyze focus group findings as a way of making them understandable and attractive are supported by some writers (Boyle, 2005; Dillon & McKnight, 1990; Higginbottom, 1998). A typical grid has x rows and y columns on which findings are computed

to reflect the subject's ratings by the discussants, based on a five-point scale, thereby making the x elements appear in terms of n constructs. Enthusiasts think that grids enable a precise description of a rating. The precision of rating, according to them, elicits symbolism which is proof of the validity of the method. Armstrong (2017) developed color-coded transcripts called "tapestries" – a metaphorical visual construct that captures a series of links between one group's posing and discussion of a problem and another. "Tapestry transcript" (p. 1679), according to the visualizer, enables the consideration of a group's discourse from "a more distant vantage point" unlike the traditional close focus plane on which analysts generally view transcripts.

The use of graphics to analyze focused discussions is significantly displayed by Omojola (2016) who created symbols and shapes to analyze the transcripts from a group that discussed an ICT-related topic. The following lines are excerpted from his presentation:

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 ...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. (p. 838)

The foregoing examples of visual presentations have issues of concern though. The discursive map "constructed" by Burgess (1996, p. 133) cannot be verified. In his entire six-page article, the map does not exist, which makes the veracity of the claim a big issue. Visuals are no visuals to anyone until his or her eyes have seen them. The assertion that the maps facilitate strong visual comparisons between groups cannot be substantiated in his abstruse presentation. Though the argument exists that color vision goes beyond color-sensitive retinal receptors (Shepard & Cooper, 1992) or perceptual experiences (Matthen, 1999), the fact remains that an audience's cognitive elaboration of visual stimuli would normally proceed from what the eye had seen. In advertising, for instance, colors aid the market's desirability of a product (Madden, Hewett, & Roth, 2000) but it is necessary that the target buyers see it first.

In the case of grids, they merely facilitate a systematic approach to layouts to ensure visual consistency (Roberts, 2007, which aids understanding, but certainly they do not represent transcripts. Furthermore, Omojola and Armstrong's presentations fixate the view of a discussant with a symbol and does not indicate how weak or strong an opinion can be. The model presented in this article addresses the issue of the weightiness or significance of the expressed views.

Color Theory and the Imperative of Representational Realism

Color is often viewed anthropocentrically, recognizing the functionality of human's visual experience. For instance, according to Averill (1985), two objects are the same color if and only if they would appear to be accurately similar in color to normal human observers under some defined ocular conditions. This implies that colors and their categorization are dependent on the visual systems with the eye as a key organ element or means of perception. Another theory – color objectivism - also asserts colors as objective phenomena. This informs the vision independence perspective that no variations in our visual mechanisms would be sufficient to bring about a variation in the colors of physical objects. Averill (2005) captures it

this way: “A is dependent on B if and only if some variation in B is sufficient to bring about a variation in A” (p. 217).

Yet another perspective – color projectivism (p. 223) – holds that colors do enter the visual system, “and because of the way they enter many of the objects we see, which are not colored, look colored.” The author notes that this perspective faces the problem of the inability to clearly explain how colors find their way into the visual system. Lastly, is color physicalism – the theory that color should be viewed as an event or properties associated with an event (Pasnau, 2009). All these theories place emphasis on phenomenology rather than color functionalism. Colors should not be viewed only as an object of discourse but also in terms of its functions.

Scholarly, it is reasonable to discuss the stuff colors are made of, but it appears that the purpose they serve is more novel and utilitarian. There is sense in Arnheim’s (1998) assertion that: “The pictorial medium of representation uses shape and color to serve two basic functions. One of them connects things belonging together and separates the ones that should be apart. The second function serves identification purposes” (p. 349). Furthermore, Viau (1998) and Gorman and Eastman (2010) note that colors, when deployed in reading, help to focus and understand what is being read with a concomitant positive effect on mood and emotions. Wallingford (2006, p. 53) also records that paint chips with the color progression (red-orange-yellow-green-blue-purple) are useful in depicting groups on the Periodic Table. Rene Descartes and John Newton endeavored to move color from the realm of discourse to utility through their prismic observations of light and the study of optics (Finlay, 2007), which have had a tremendous impact on the way we do things today.

Color, Shade, Tints, and Tones: Brief Descriptions

The property of the color one sees that enables classification by name is called a *hue*. For instance, when you see a hue that has the color of a leaf, you call it green. When you see blood, you call it red. When variation occurs to a hue, it could either be a shade, tint or tone depending on the color that is involved. In computer graphics such as that used in this model, tint relates to the level of transparency or opacity of the hue vis-à-vis the background color, which is white. When the foreground hue decreases against the white background usually as a result of lighting it becomes a tint. Darkening reverses the process and makes it a shade. Tint, therefore, may be described in terms of *brilliance* and shade in terms of *depth*. A tone is *any point of grey* between black and white. Conceptually, tint, shade and tone are central to what this study attempts to achieve.

Study Intention and Rationale

What is striking about the hybrid perspective of focus group analysis is that it has not been able to resolve the critical issue of how best to analyze focus group transcripts. Wilkinson (1998) advises, accordingly, that a considerable potential exists for the development of a new and better method of analyzing focus group findings. Businessmen and women who need to understand the results of a research in good time (which is crucial for decision-making), students, novice investigators and young researchers can benefit from an alternative graphic method that facilitates quick understanding. This paper subscribes to the Wilkinson’s position and introduces a graphic model of analysis through the use of colors, shades and tints.

The use of visual images instead of words and numbers for analysis is not visible enough yet in focus group research. In this work we demonstrate the utility of color as representational realism by using a set of hues, tints and tones to depict the opinions of focus group discussants and the strength of those opinions. Doing so helps to realistically determine

visually what transpired in the discussion and how. The cognitive ability to decipher this depiction is deemed *automatic*, or at least not difficult, so as to “to enable the viewer figure it out” (Omojola & Asaniyan, 2017, p. 502).

The Focus Group Discussion

The third edition of the International Conference on African Development Issues (ICADI) was held in May 2016 in Covenant University, Ota, Nigeria. The keynote speaker, Nigeria’s former President Olusegun Obasanjo, spoke on the theme of the conference: “Driving Inclusive and Sustainable Development in Africa: Models, Methods and Policies.” The conference was conceptualized around the widely-held opinion that Nigeria, Africa’s largest economy and most populous country, has the potential to become a global power.

Obasanjo, in his speech, asserted that Nigeria’s current leader Muhammadu Buhari, a former military dictator elected in May of 2015 as the nation’s president, had the leadership wherewithal to prosecute the war on terror but lacked the requisite strategy and experience to restore Nigeria socio-economically.

This assertion elicited the setting up of a focus group of seven conference participants (P1, P2, P3, P4, P5, P6, & P7) at the conference to discuss the ability of Buhari to improve the fortunes of the country. The following two items were discussed:

- Causes of Nigeria’s socio-economic downturn
- The ability of Nigeria’s leader as a socio-economic change agent.

The group members - four men and three women – were well educated. All were adults – more than 20 years - and all, except one South African, were Nigerians. Since the moderator of the discussion also had a higher academic degree, a kind of horizontal parallel was established intellectually as a way of drastically minimizing “impression management whereby respondents provide answers which they think the interviewer wants to hear” (Wilson, 1997 p. 217). The discussion lasted 30 minutes, each item going for 15 minutes. The moderator informed the discussants of the presence of a research assistant to undertake the audio recording of the discussion. Instruction was also given that the discussants should indicate the strength of each point made to the item being discussed, as “important (I), “very important” (VI) or “extremely important” (EI). The transcripts of the discussion were produced, setting the stage for the analysis as presented below.

Analysis of Transcripts

Figure 1 below is a table containing all the colors used for the analysis. It displays 30 identified colors. Each color with the fullest hue is graded (3) and presented along with two levels of transparency (2) and (1). These numerals represent respectively the three levels of opinion strength, namely *Extremely Important (EI)*, *Very Important (VI)* and *Important (I)*.

Figure 1: 30 Colors in three levels of transparencies

EI(3)	VI(2)	I(1)	EI(3)	VI(2)	I(1)	EI(3)	VI(2)	I(1)
Violet			Dusty Plum			Light Violet		
Neon Red			Sand			Walnut		
Peach			Gold			Khaki		
Chartreuse			Army Green			Mint Green		
Sea Green			Magenta			Orange		
Crimson			Cyan			Black		
Grass Green			Brown			Blue		
Red			Green			Yellow		
Turquoise			Grape			Olive		
Purple			Deep Rose			Olive Drab		

Responses to Item 1: Causes of Nigeria's socio-economic downturn

Below are the responses to the first item. They are aptly summarized, paraphrased or put in a quotation especially if the quoted text aptly summarizes the point made. The color representing each opinion and the strength (transparencies) of that opinion are identified respectively at the end of each response statement. The same color is used to represent similar or identical views. If the expressed opinion is *extremely important* it attracts 3 while *very important* and *important* are tagged 2 and 1 respectively.

P1 Submission

- The oil and the curse it brings along are the major cause of Nigeria's socio-economic trouble. *Purple, 2.*
- Nigeria's political leaders are very corrupt and their behavior earned Nigeria the title of one world's most corrupt countries. *Khaki, 3*
- Pseudo Federalism and defective constitution which allow some geopolitical zones to be lazy and reliant on oil from the Niger Delta is the cause. *Sand, 1*
- Insecurity. *Black, 3*

- Refusal to save for the rainy day. *Mint green, 2*
- Outdated laws. *Crimson, 2*
- Wrong policies and poor implementation of a few good ones. *Turquoise, 2*

Figure 2: Color representation of P1’s response to the Item 1: Causes of Nigeria’s socio-economic downturn

S/N	a		b		c		d		e		f		g	
O/S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
P1		2		3		1		3		2		2		2

S/N=Serial Number, O/S= Opinion and Strength of Opinion, P1=First discussant

Figure 2 shows that P1 had seven responses to Item 1. The oil curse response is represented by purple with the strength of that opinion put at very important (2 represented by a tint of purple). In addition to tints and shades used to depict the strength of the expressed views, the digits 1, 2 and 3 are also used. This is necessary as a guide in case this publication is being read in either gray scale or black and white. A black and white impression is certain to wipe off the hue differentials that allow easy identification of the colors.

In Figure 2, the opinion on corruption is represented by khaki with the strength of the opinion put at 3. Sand represents the opinion on pseudo federalism and defective constitution. Full black and full black represent both the view expressed and the strength (3) of that view. Mint green goes for the opinion on the refusal to save for the rainy day with the concomitant very important strength (2). Crimson also represents the opinion on outdated laws and tint of 2 for the strength, while turquoise caters for wrong and poor implementation of policies, with the strength of 2 as represented by the associated tint.

P2 Submission

- British colonialists instituted actions (including divide and rule) which did not augur well for development. *Chartreuse, 1*
- Tribalism is a bane of development. *Sea Green, 2*
- Educational system does not address the socio-economic needs of citizens. *Olive drab, 2*
- “I agree oil has been a curse on the nation.” *Purple, 2*
- Nigerian youths are being left to waste away. *Yellow, 2*
- “There is hardly any doubt that Nigerian political leaders are corrupt.” *Khaki, 3*
- Nigeria needs restructuring. *Peach, 2*
- Insecurity. *Black, 3*

Figure 3: Color representation of P2's response to the Item 1: Causes of Nigeria's socio-economic downturn

S/N	a		b		c		d		e		f		g		h	
O/S	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
P2		1		2		2		2		2		3		1		3

S/N=Serial Number, O/S= Opinion and Strength of Opinion, P2=Second discussant

In Figure 3, Chartreuse represents the opinion about British colonialists with the tint of 1. The view on tribalism is represented by Sea green with a tint of 2. The opinion about defective education system is represented by Olive drab with a tint of 2. The oil curse comment has purple with a tint on 2. Yellow goes for the opinion on youth with the tint on 2. The opinion on corruption is extremely important, which means that the color that represents its strength remains unchanged from the full color. The opinion on the restructuring of Nigeria is represented by peach with the strength that carries a tint of 1. To him, security is extremely important so the strength (3) is full black.

P3 Submission

- Corruption of Nigerian leaders is a major factor of underdevelopment. *Khaki, 3*
- Corruption is pervasive but it is made complex by the collusion of such Western countries as the United States and those of Europe where much of the proceeds of Nigerian corruption is kept. *Orange, 1*
- "You are right, tribalism can be problematic." *Sea Green, 1*
- Activities of militants and Islamic terrorists are affecting Nigeria's security negatively. *Black, 3*
- "Oil for Nigeria has become a curse indeed." *Purple, 1*
- "Islam seems to be a problematic religion for Nigeria, it diminishes women's status and has the tendency to promote violence." *Green, 2*

Figure 4: Color representation of P3's responses to the Item 1: Causes of Nigeria's socio-economic downturn

S/N	a		b		c		d		e		f	
O/S	O	S	O	S	O	S	O	S	O	S	O	S
P3		3		1		1		3		1		2

S/N=Serial Number, O/S= Opinion and Strength of Opinion, P3=Third discussant

In Figure 4, khaki represents corruption and carries a full hue (3) while the comment that corruption is made complex by Western countries is represented by orange with a tint of 1. Sea green goes for the tribalism comment with a tint of 1 while black attends to that on security with a hue of 3. Oil curse comes purple with a tint of 1 while green is used to illustrate the very important comment that Islam is problematic with a tint of 2.

The same color representation process is repeated for P4, P5, P6 and P7 submissions which are listed below:

P4 Submission

- “Islam, per se, is not problematic. But the way some Nigerians practice it is awful. For instance, killing in the name of religion is, to me, insane.” *Grape, 1*
- “Acts of tribalism have not been in Nigeria’s interest.” *Sea Green, 2*
- There was too much focus on resources and far less emphasis on the acquisition of knowledge. *Light violet, 3*
- “Too much corruption of the leaders!” *Khaki, 3*
- Agriculture and solid minerals were neglected by successive governments. *Cyan, 2*
- Press performance in driving development is poor. *Neon Red, 1*

P5 Submission

- Nigerian leaders – military or civilian – are very corrupt. *Khaki, 3*
- “Islam is not problematic. But some Nigerians are giving the religion a bad name.” *Grape, 3*
- Boko Haram is a curse. Niger Delta militants are also a threat. But government should address their agitations. *Black, 2*
- Tribalism has made some parts of the country victims of injustice. *Sea Green, 1*

P6 Submission

- Bad policies and policy implementation constitute a major factor for infrastructural deficiency, lack of amenities, poor research and development, neglect of small and medium scale industries and ineffective social entrepreneurship. *Turquoise, 2*
- “Corruption of course!” *Khaki, 3*
- Insecurity. *Black, 3*
- Nigerian youth constitute the majority of the population but they are neglected by the leadership. *Yellow, 2*

P7 Submission

- Poor fiscal and monetary policies, including poor foreign exchange regime hindered development. This situation is complicated by internal and external debts of the country and its import dependency syndrome. *Turquoise, 2*
- Fear of being attacked by kidnappers and terrorists is preventing foreign investors. “So, insecurity is a big issue in this country.” *Black, 3*
- “I agree that agriculture had all along been neglected. The neglect is complicated by financial institutions that are not sincere in their dealings.” *Cyan, 3*
- “Oh my goodness! Corruption is another name for some Nigerian politicians.” *Khaki, 3*

If the opinions of all the respondents for Item 1 are represented with colors and the relevant transparencies the following emerges.

Figure 5: P1...P7's representation of transcripts for Item 1: Causes of Nigeria's socio-economic downturn

S/N	a		b		c		d		e		f		g		h	
O/S	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
P1	2	3	1	3	2	2	2	2								
P2	1	2	2	2	2	2	2	2	3	1	3					
P3	3	1	1	3	1	2										
P4	1	2	3	3	2	2	1									
P5	3	1	2	1												
P6	2	3	3	1												
P7	2	3	3	3												

Responses to Item 2: The ability of Nigeria's leader as a socio-economic change agent

The following are the responses of the discussants. They are also aptly summarized, paraphrased or put in quotation if the quoted text aptly captures the point raised. Colors are also selected from Figure 1 and the similar process of representation is completed for the responses to the items. All the color representations for Item 2 are combined and displayed on Figure 6 below.

P1 Submission

- He was once a military Head of State. That is a should help him perform. *Violet, 1*
- He seems to be patriotic and passionate about Nigeria. *Walnut, 3*
- His ethnic group – Fulani – makes him a likely leader that can understand the language of terrorists with a view to dealing with them decisively. *Gold, 3*
- He is into agric business. So I expect him to take agriculture seriously. *Army Green, 2*
- He flaunts the image of an incorruptible Nigerian. I expect him to fight corruption. *Blue, 3*

P2 Submission

- “I support Obasanjo’s assertion that he lacks the knowledge to develop Nigeria economically.” *Brown, 2*
- “He was once the Military Head of State. That matters to a nation’s security.” *Violet, 2*
- “I pray that this man does not turn out to be a religious fanatic.” *Red, 3*
- He hates corruption. He will fight it. *Blue, 3*

P3 Submission

- His anti-corruption drive will save Nigeria's oil industry. *Blue, 3*
- He is passionate about agriculture. He will develop it. *Army Green, 2*
- "But I'm afraid. He looks like a religious bigot" *Red, 2*
- His position as a former Military Head of State will help him. *Violet, 2*
- Obasanjo was right for saying he does not have what it takes to take Nigeria out of the woods. *Brown, 3*
- He does not have an answer to Militancy in the Niger Delta. He is doing something justifiable against Boko Haram, no doubt. The rate of kidnapping has upped. So, security-wise, he is neither here nor there. *Deep Rose, 2*
- He has the support of Nigeria's foreign partners, especially the United States. That's an incentive. *Magenta, 2*

P4 Submission

- He hates corruption with passion. He will fight it with the last drop of his blood. *Blue, 2*
- His was a former Head of State and General in the army, "which is a plus for him." *Violet, 2*
- In terms of the economy, Nigerians should not be hopeful. This is complicated by the fact that, there is lack of visible technocrats with the requisite knowledge to advise him properly on economic matters. *Brown, 2*
- The United States and Europe have offered their support. That could make him succeed. *Magenta, 2*
- His slow response to the rampaging Fulani herdsmen [another supposed Islamic violent group] is questionable. Religious bigotry is truly indicated. *Red, 2*

P5 Submission

- His anti-corruption endeavors are yielding fruits. *Blue, 2*
- "He was a military ruler so I expect he would put that experience to use." *Violet, 1*
- His past utterances about religion make him a leader that cannot be trusted in terms of religion and ethnicity. *Red, 3*
- "If you looked critically at his regime, you would notice Mr. Buhari does not have any blueprint or strategy to make Nigeria great economically. His performance as the chairman of the Petroleum Task Fund (PTF) several years ago was not brilliant. The way he ran that Fund is a pointer to the fact that he may be clueless in terms of running the Nigerian economy." *Brown, 3*
- "The international community is lending its support." *Magenta, 2*

P6 Submission

- Improving the socio-economic situations and human capital development of citizens involves building public institutions that support such growth and improvement. It is not certain Buhari will be able to achieve this because he

does not have the necessary knowledge “I’m in tune with Obasanjo on the inability of Buhari to bring about sustainable socio-economic growth.” *Brown, 2*

- He has a military background; he is better positioned to stem insurgency, ethnic protests and terrorism. *Violet, 2*
- “I expect him to intensify deregulation, privatization and diversification of the economy. There is nothing to show in this regard.” *Olive, 2*
- His anti-corruption endeavors is commendable. “He has begun the process of eliminating ghost workers and started the TSA [Treasury Single Account,]” which ensures that all incomes from all arms of government are consolidated into a single account in a manner that makes monitoring possible. *Blue, 2*

P7 Submission

- “Is he truly fit to remain as Nigeria’s President health-wise?” *Grass Green, 3*
- “He appears to be truly fighting corruption and that’s crucial” *Blue, 3*
- “His experience as a military dictator can be of help in the area of security” *Violet, 3*
- “I don’t trust this man with religion.” *Red, 3*
- “Support from the international community is advantageous in many respects.” *Magenta, 2*
- Buhari may be a farmer but “I don’t see him succeeding on the Agric front because there is no clear-cut policy in place. The truth is, he does not have the knowledge.” *Brown, 2*

Below is the table containing the color representations for all the responses to Item 2.

Figure 6: P1...P7’s representation of transcripts for Item 2: Ability of Nigeria’s leader as a socio-economic agent

S/N	a		b		c		d		e		f		g	
	O	S	O	S	O	S	O	S	O	S	O	S	O	S
P1		1		3		3		2		3				
P2		2		2		3		3						
P3		3		2		2		2		3		2		2
P4		2		1		2		2		2				
P5		2		1		3		3		2				
P6		2		2		2		2						
P7		3		3		2		3		2			2	

It is important to note that 29 out of the 30 colors listed in Figure 1 have been used. The color unused was dusty plum. In case the number of the views expressed in the discussion is more than the colors initially arrayed for use in the representational analysis, the researcher is expected to create a fresh set of colors to cater for the number needed.

The foregoing Figure 6 shows that a total of 36 opinions (the O's) were expressed in response to the second item while the first item had 39 responses represented in Figure 5. Of the 39 responses to Item 1, the views on corruption appeared most represented (seven times) by khaki and all the opinions expressed were extremely important. The views on security came second, appearing six times in black and all of them were considered extremely important except one that was very important. The comments on tribalism appeared four times in sea green with two apiece considered important and very important. Wrong policy comments appeared three times in turquoise with all of them extremely important. Comments on oil curse also appeared three times in purple with two considered as very important and one important. Comments on youths, Islam, and Agric appeared in yellow, grape, and cyan respectively, all appearing as important except agriculture that had one extremely important comment. Other colors used appear once each as important and as very important.

In Figure 6, comments about Buhari's experience as former military head of state represented by violet appeared most (seven times) with four as very important and three as important. The comments that he hates corruption also appeared seven times in blue with four considered as extremely important and three as very important. The views that Buhari lacks the requisite knowledge to handle the nation's affairs appear six times (in brown) with four as very important and two extremely important. Next are comments that he cannot be trusted with religion, which appear in red five times with two considered as very important and three extremely important. The discussants said that foreign partners were instrumental to his leadership in order to succeed and that appears four times in pink with all comments as very important. Army green is used to represent the very important comments on agriculture. All other comments appear once each and represented with one color. All comments in this category are important.

Discussion

End users of research findings prefer stress-less data analysis. This color model ensures quick, prima facie understanding and interpretation of data. It is easy, for instance, to know that 75 (39+36) comments were made in response to the two items. Of the 39 responses to the first item, 14 are extremely important, 13 are very important while 12 are important. Of the 36 responses to the second item, 12 are extremely important, 21 very important and three important. In both cases, all these come to 26 extremely important responses, 34 very important and 15 important. This count reduces numeracy to a simple level.

Besides the quick determination of salient facts of the discussion, some observations of different unexpected dimension also exist. In Figure 5 it is observed that P1 and P2 have six and seven responses responsively. After P2 the number of responses reduces regressively as P3 and P4 have four each while P5, P6 and P7 have three each. This regression elicited a curiosity that led to the replay of the audio. The fresh playback showed clearly that, of the 15 minutes allotted to the discussion of the first item, P1 discussed for 194 seconds, P2 177 seconds, P3 145 seconds, P4 136 seconds, while each of the three remaining discussants had less than 90 seconds. This disproportionate time allotment could also be detected! This suggests that using this color model has the potential to assist in evaluating the time management in a focus group discussion.

Furthermore, Figures 5 and 6 also show that prima facie, the highest number of responses correlates graphically with the Very Important and Extremely Important ones. In

Figure 5, for instance, khaki had seven responses on corruption, all of them extremely important. Black had six on security with five of them extremely important and one very important. Most of the colors with one appearance have simply important comments. Figure 6 seems to corroborate this pattern. Blue, which represents comments on Buhari's ability to tackle corruption, appears seven times. Three of them are very important, and four of them extremely important. Violet, which depicts the comments on Buhari's position as a former military head of state, appears seven times with four as very important. Red, on the comments that Buhari cannot be trusted with religion and Brown that he lacks the necessary knowledge to run the country appear five and six times respectively. All appearances in the two cases are either very important or extremely important.

It is important also to reiterate the fact that this color model is out to simplify the understanding and interpretation of focus group data, as a way of making research useful to the target audience. The cognitive elaboration (Buijzen, Reijmersdal, & Owen, 2010; McGill & Anand, 1989; Omojola, 2008) of the target users of this model must, therefore, be set at the automatic level. Cognitive elaboration relates to the extent to which an audience, through cognitive resources, *makes meaning, forms judgment and takes decision* about a visual stimulus. Unlike the systematic or heuristic perspective which is long drawn, the automatic view of cognitive elaboration preaches a situation in which an audience performs the three-stage sequence with the greatest of ease; almost automatically without distractions. One of the ways to ensure quick understanding and interpretation in this color model is to avoid placing similar colors side by side. For instance, turquoise and cyan, walnut and brown, and brown and crimson look alike. They should not be placed side by side. The *automatized* (Grunert, 1996) view can be very attractive to youngsters, non- and less-numerate persons, illiterates, young researchers and business men and women who, incidentally, are among the targets of this article.

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Author Note

Oladokun Omojola is Associate Professor of Mass Communication in the Department of Mass Communication, Covenant University, Ota, Nigeria. Correspondence regarding this article can be addressed directly to: ola.omojola@covenantuniversity.edu.ng.

Dr. Oscar Odiboh is a Senior Lecturer in the Department of Mass Communication, Covenant University, Ota, Nigeria.

Dr. Lanre Amodu is Senior Lecturer and Head of Mass Communication, Covenant University, Ota, Nigeria.

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Article Citation

Omojola, O., Odiboh, O., & Amodu, L. (2018). Opinions as colors: A visual analysis technique for modest focus group transcripts. *The Qualitative Report*, 23(8), 2019-2035. Retrieved from <https://nsuworks.nova.edu/tqr/vol23/iss8/16>
