

Snack Food Package Design: Exploratory Study on Children's Snack Choices and Design Elements

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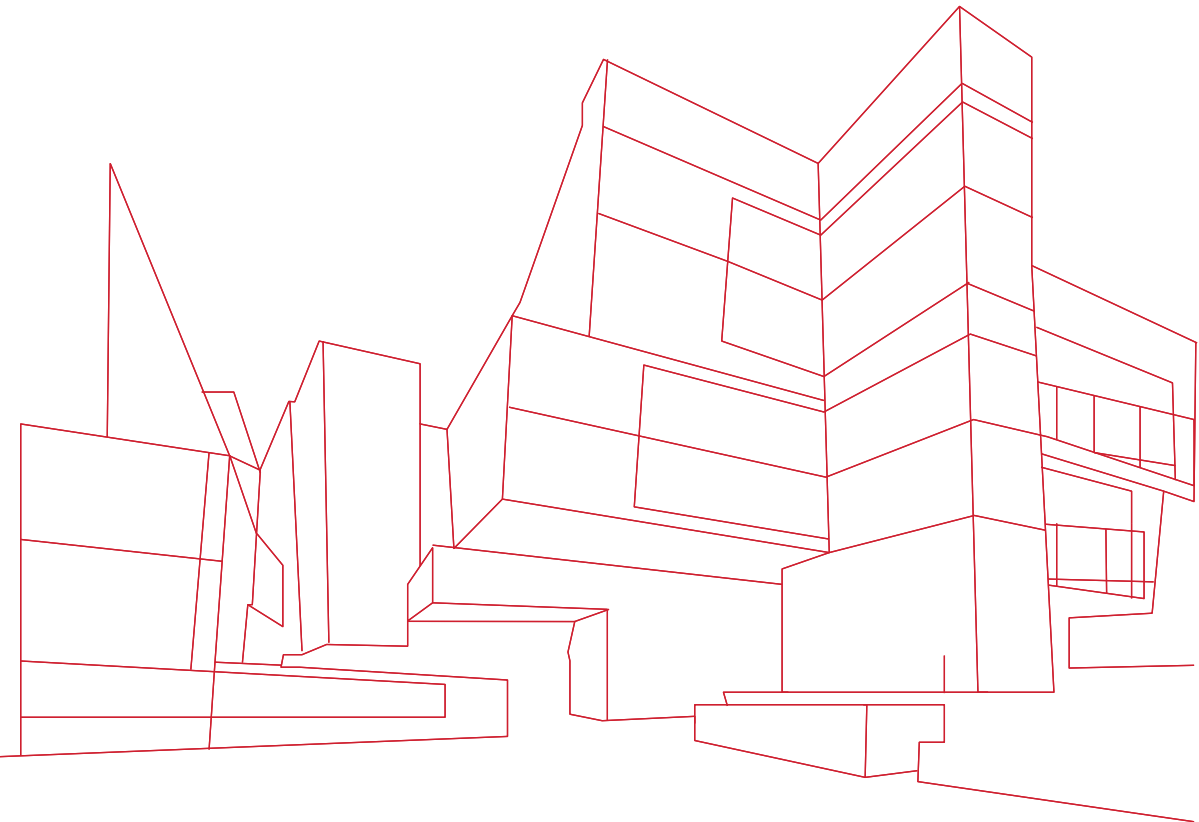
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THE ROLE OF PACKAGING

Packaging influences a consumer's buying decision at the point of sale.

(McNeal & Ji, 2003, Silayoi & Speece, 2004, Abdalkrim & Abdulaziz, 2013).

Packaging provides an opportunity to connect with the audience and to convey information that persuades a consumer's food selection.

(Roberto et al., 2007, Robinson et al., 2010).



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Background

Objectives

Methods

Findings

Conclusion

Future Research

Growth in the area of children as a consumers group (McNeal and Ji, 2003).



Background

Objectives

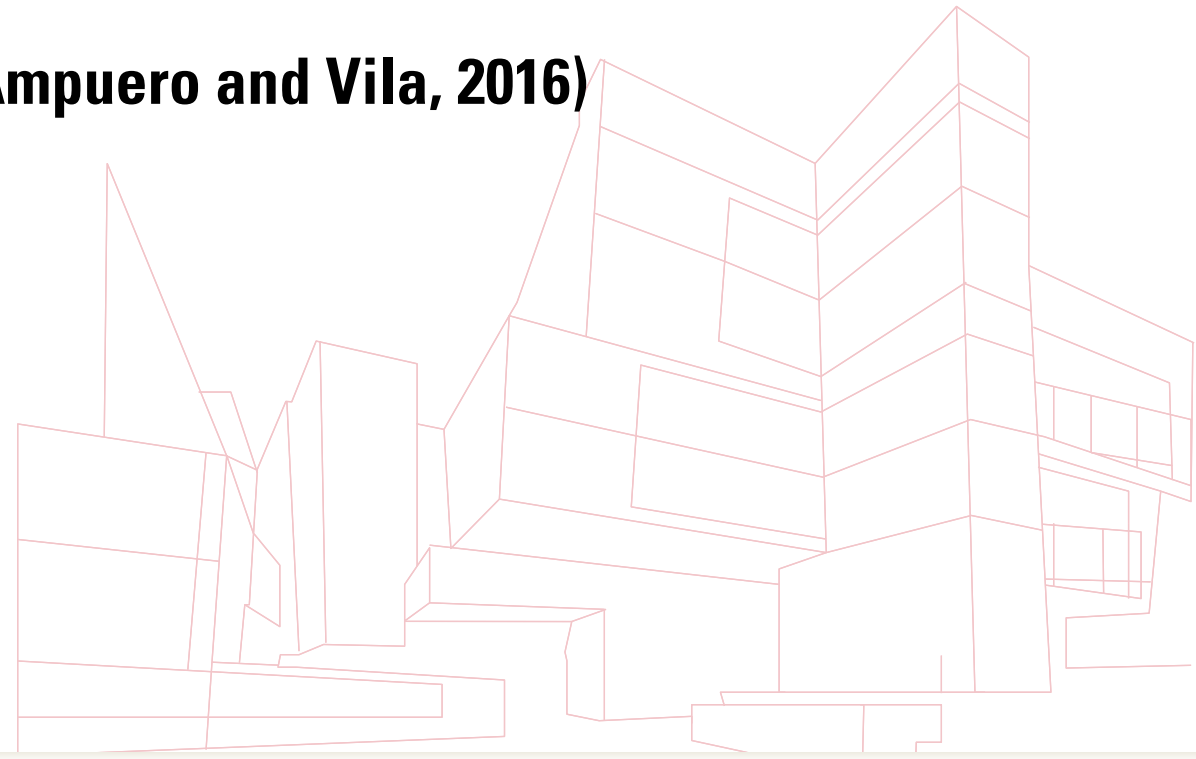
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The key design elements of packaging: **color typography, shapes, and image** (Ampuero and Vila, 2016)



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The Previous Study: Color Choice to Eat

Color	Green		Yellow		Red		Pink		Blue	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1st choice	11 (27.5%)		4 (10.0%)		11 (27.5%)		3 (7.5%)		11 (27.5%)	
	6	5	1	3	7	4	0	3	6	5
2nd choice	14 (35.0%)		4 (10.0%)		12 (30.0%)		3 (7.5%)		7 (12.5%)	
	7	7	3	1	4	8	2	1	4	3
3rd choice	10 (25.0%)		14 (35.0%)		7 (17.5%)		4 (10.0%)		5 (12.5%)	
	6	4	6	8	3	4	1	3	4	
4th choice	3 (7.5%)		9 (22.5%)		7 (17.5%)		8 (32.5%)		13 (32.5%)	
	1	2	7	2	4	3	3	5	5	8
5th choice	2 (5.0%)		9 (22.5%)		3 (7.5%)		22 (55.0%)		4 (10.0%)	
	0	2	3	6	2	1	14	8	1	3

Boy = 20

Girl = 20



Kang, S. R, Satterfield, D, and Ladjahasan, N. (2016). Color preference study on snack package design to children as a health communication strategy. In the proceedings of AIC (International Color Association) 2016 Conference, Santiago, Chile, October 18 to 21.

The Previous Study: Choice on Healthy Snack Colors

Color	Green		Yellow		Red		Pink		Blue		No Answer
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
Group 2 (n=18)	9 (50.0%)		2 (11.0%)		3 (16.7%)		0 (0%)		4 (22.0%)		0
	4	5	1	1	2	1	0	0	1	3	
Group 3 (n=20)	11 (55.0%)		3 (15.0%)		2 (10.0%)		1 (5.0%)		2 (10.0%)		1 (5.0%)
	5	6	2	1	2	0	0	1	2	0	
Total	20 (52.6%)		5 (13.2%)		5 (13.2%)		1 (2.6%)		6 (15.8%)		1 (2.6%)



Kang, S. R, Satterfield, D, and Ladjahasan, N. (2016). Color preference study on snack package design to children as a health communication strategy. In the proceedings of AIC (International Color Association) 2016 Conference, Santiago, Chile, October 18 to 21.

how design variables such as **typography, images, and stylistic combinations of visual elements** influence children's snack food selection;

how **health messages** affect children's snack food selection; and

how perceived '**healthiness**' influences children's snack selections.

DESIGN OF TESTED VARIABLES: Typographic Variables



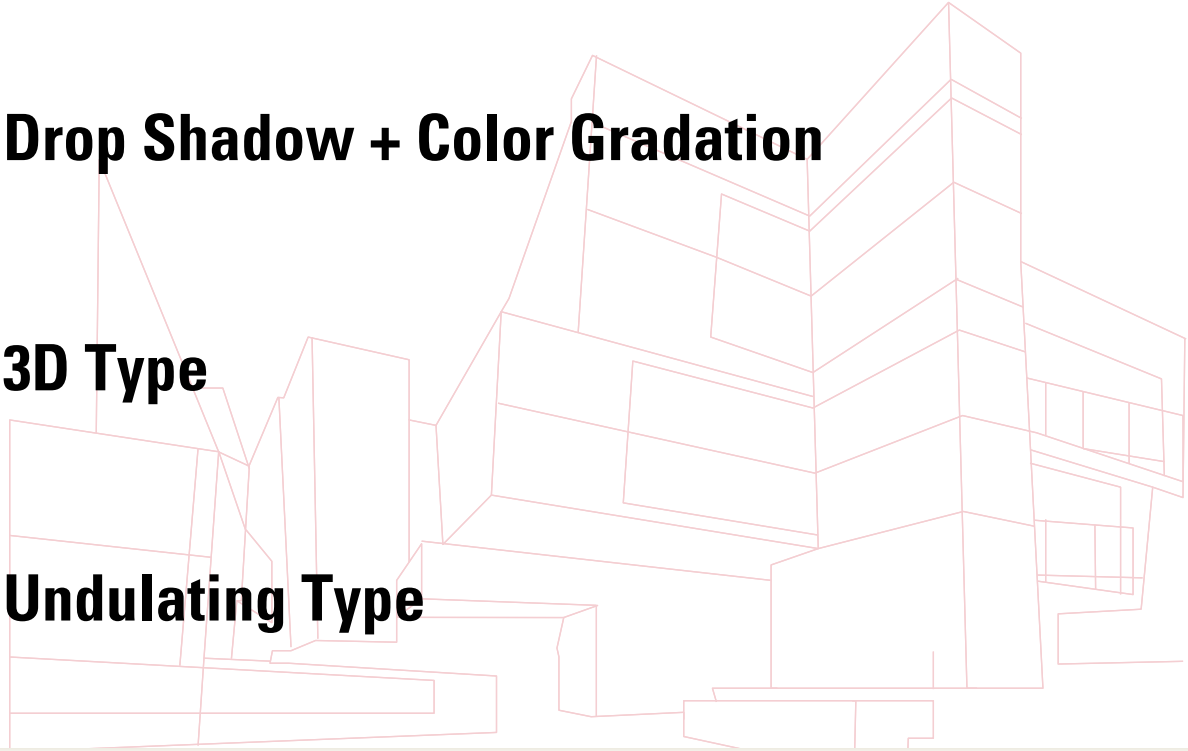
Light Weight

Normal Weight

Drop Shadow + Color Gradation

3D Type

Undulating Type



DESIGN OF TESTED VARIABLES: Image Variables



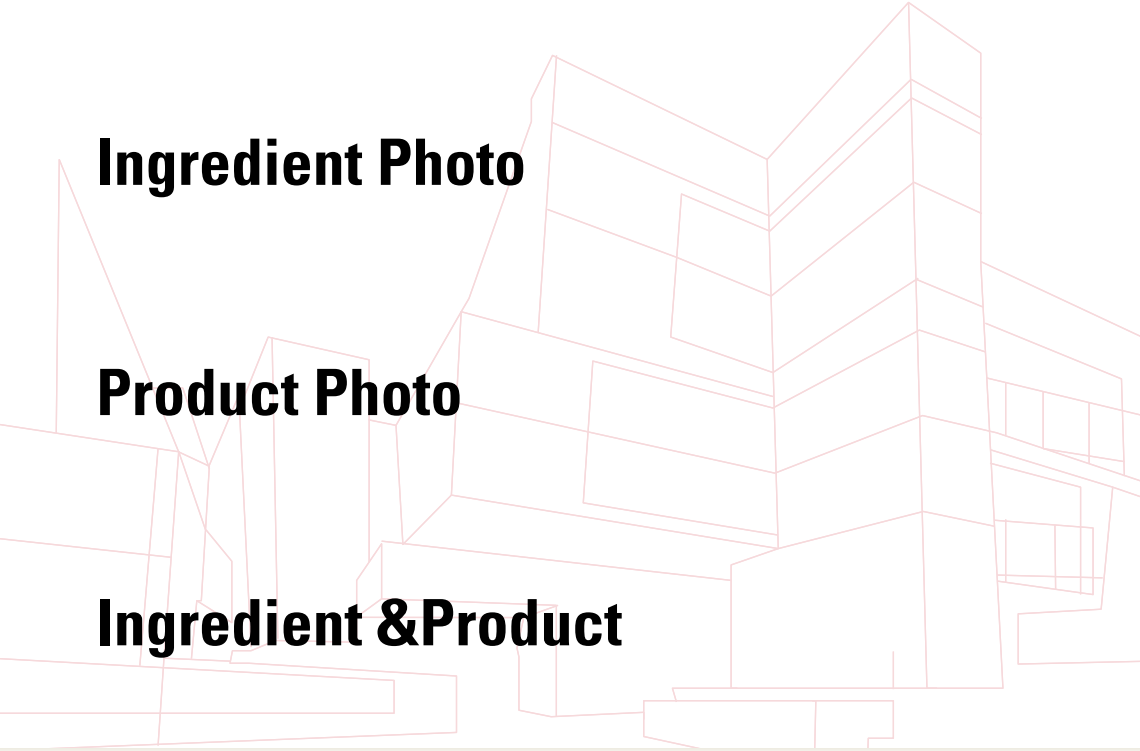
Random Lines

Brand Graphic

Ingredient Photo

Product Photo

Ingredient & Product



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DESIGN OF TESTED VARIABLES: Stylistic Combination of Design & Typographic Variables



Normal Type & Product Photo



Decorative Type & Product Photo



Decorative Type & Brand Graphic



Decorative Type & Cartoon Character



Normal Type & Cartoon Character & Brand Graphic

DESIGN OF TESTED VARIABLES: Information Verbal Messages



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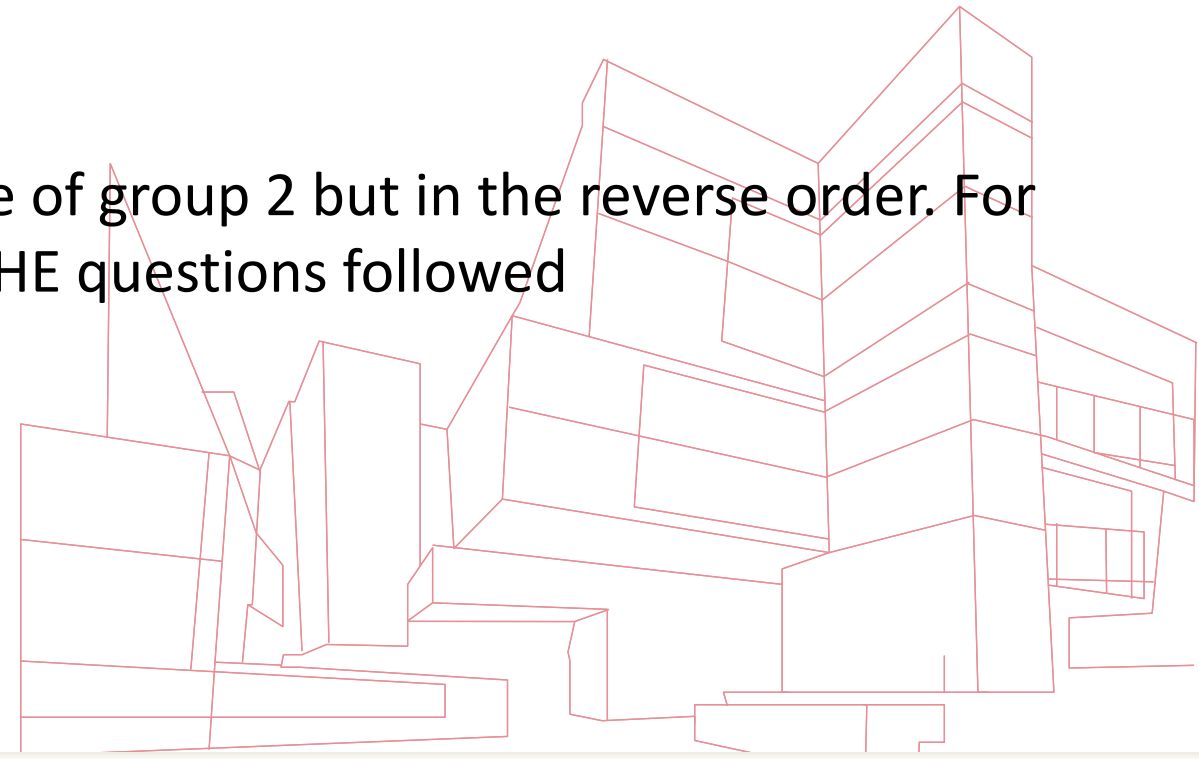


SURVEY:

Group 1 was asked in an open-ended manner to select the package with the contents of the snack “they would prefer to eat (PE)” and in a follow up qualitative question they were asked to explain why they would prefer to eat this snack.

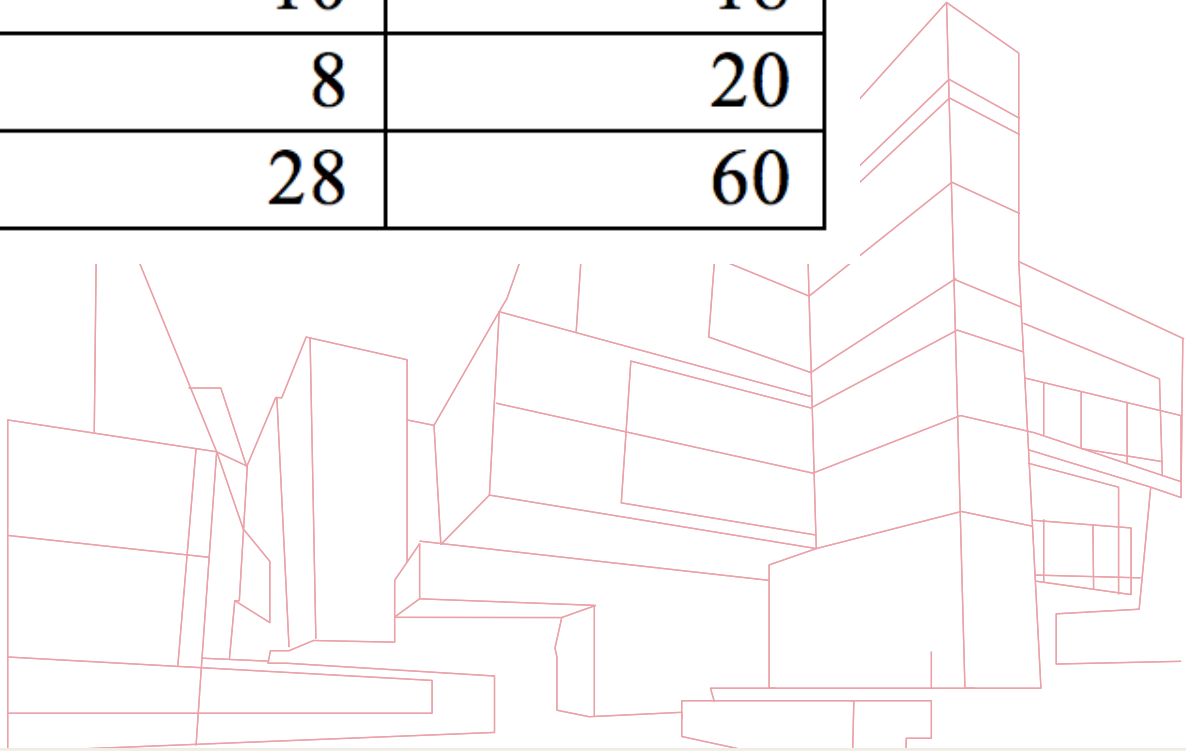
Group 2 was asked the same question as the Group 1 children and then asked an additional question about which they perceived as a “healthier snack to eat (HE)” based on the package design elements.

Group 3 was asked the same questions as those of group 2 but in the reverse order. For group 3, the PE choice was asked first, and the HE questions followed



SURVEY RESULTS: Participant Information

	Boys	Girls	Total
Group 1	12	10	22
Group 2	8	10	18
Group 3	12	8	20
Total	32	28	60

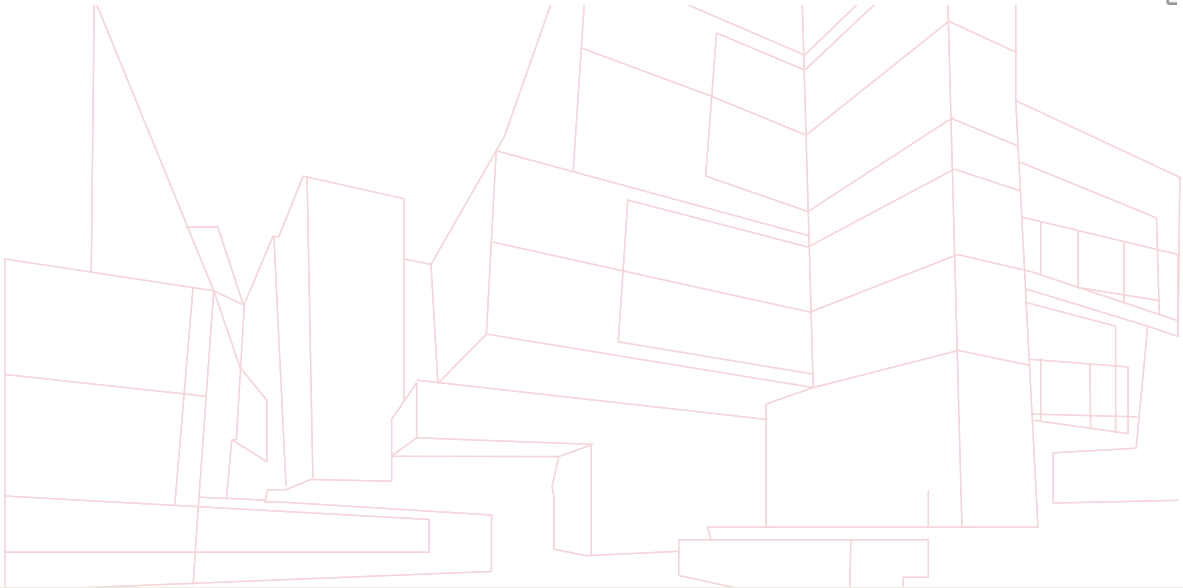


SURVEY RESULTS: Typographic Choice to Eat

		Group 1 and 2		Group 3	
		Frequency	Percent	Frequency	Percent
Valid	T1	4	10.0	2	10.0
	T2	1	2.5	4	20.0
	T3	22	55.0	5	25.0
	T4	4	10.0	4	20.0
	T5	9	22.5	5	25.0
	Total	40	100.0	20	100.0



- T1 Light Weight**
- T2 Normal Weight**
- T3 Drop Shadow + Color Gradation**
- T4 3D Type**
- T5 Undulating Type**

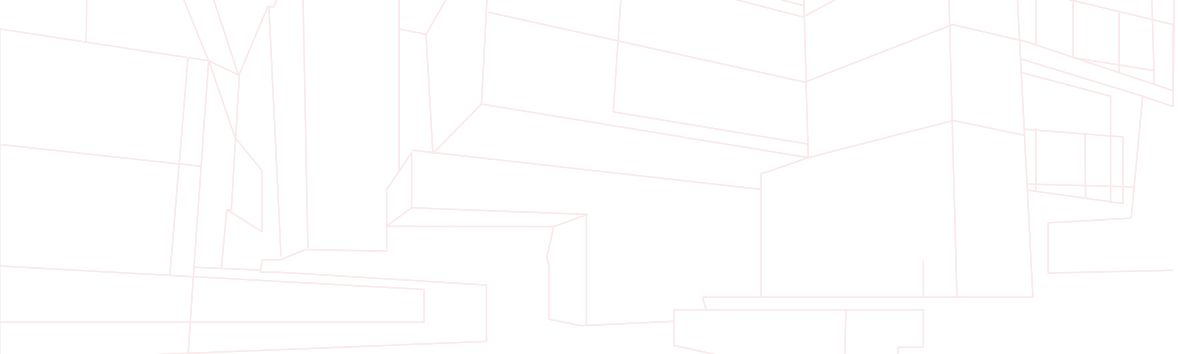


SURVEY RESULTS: Typographic Choice on Healthy Snack

		Group 2		Group 3	
		Frequency	Percent	Frequency	Percent
Valid	No Answer	1	5.6	0	0
	T1	5	27.8	10	50.0
	T1, T2	2	11.1	0	0
	T1, T3	1	5.6	0	0
	T2	4	22.2	3	15.0
	T3	3	16.7	2	10.0
	T4	2	11.1	2	10.0
	T5	0	0	3	15.0
Total		18	100.0	20	100



- T1 Light Weight**
- T2 Normal Weight**
- T3 Drop Shadow + Color Gradation**
- T4 3D Type**
- T5 Undulating Type**

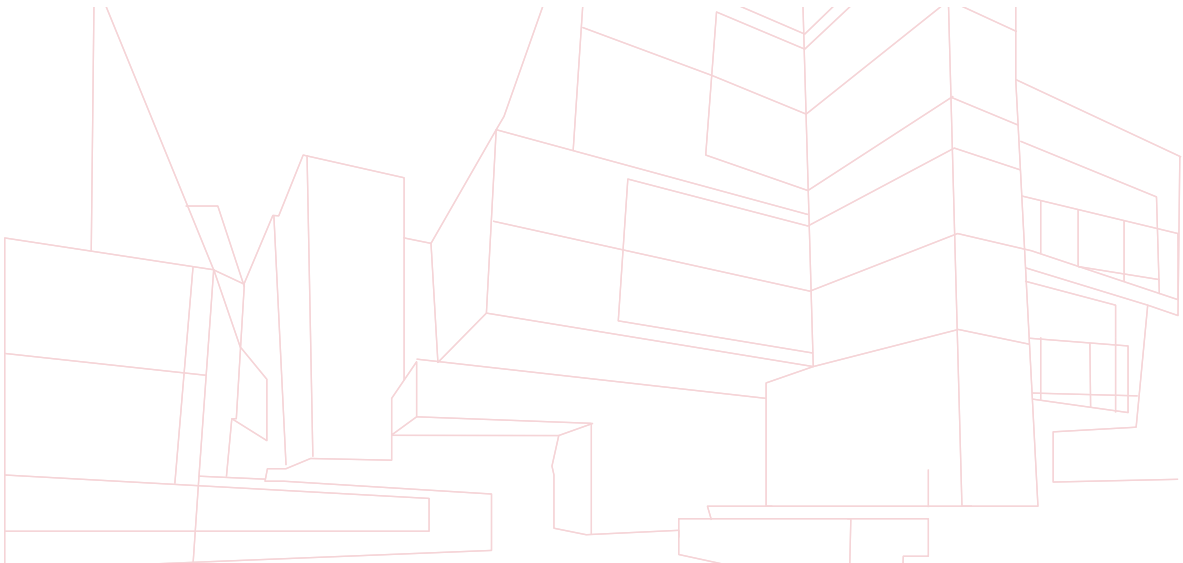


SURVEY RESULTS: : Image Choice to Eat

		Group 1 & 2		Group 3	
		Frequency	Percent	Frequency	Percent
Valid	I1	24	60.0	8	40.0
	I1, I5	1	2.5	0	0
	I2	0	0.0	6	30.0
	I3	11	27.5	2	10.0
	I4	4	10.0	4	20.0



- I1 Random Lines**
- I2 Brand Graphic**
- I3 Ingredient Photo**
- I4 Product Photo**
- I5 Ingredient &Product**

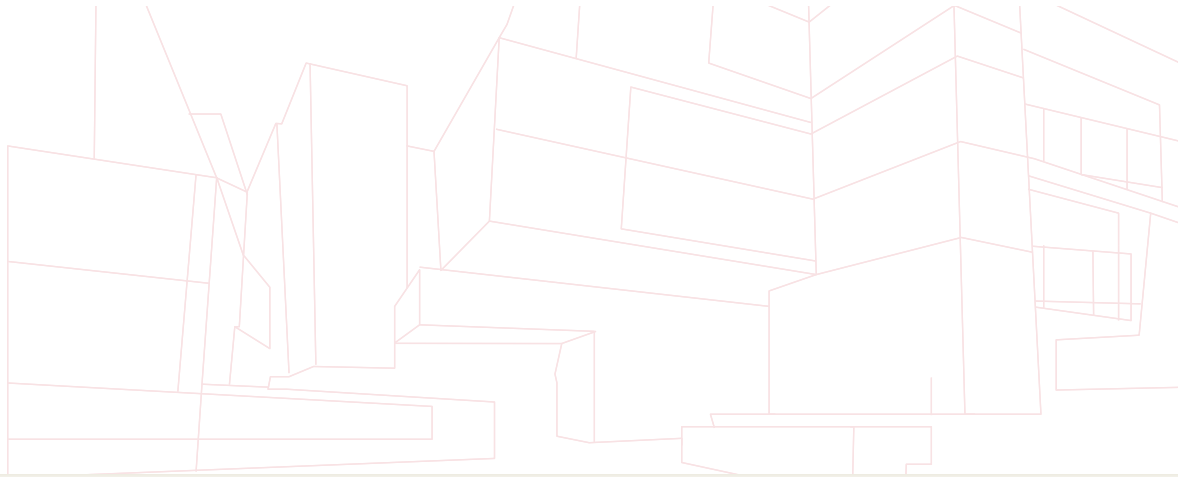


SURVEY RESULTS: : Image Choice on Healthy Snack

		Group 2		Group 3	
		Frequency	Percent	Frequency	Percent
Valid	I1	0	0	3	15.0
	I2	0	0	1	5.0
	I3	8	44.4	9	45.0
	I4	1	5.6	2	10.0
	I5	9	50.0	5	25.0
	Total	18	100.0	20	100.0

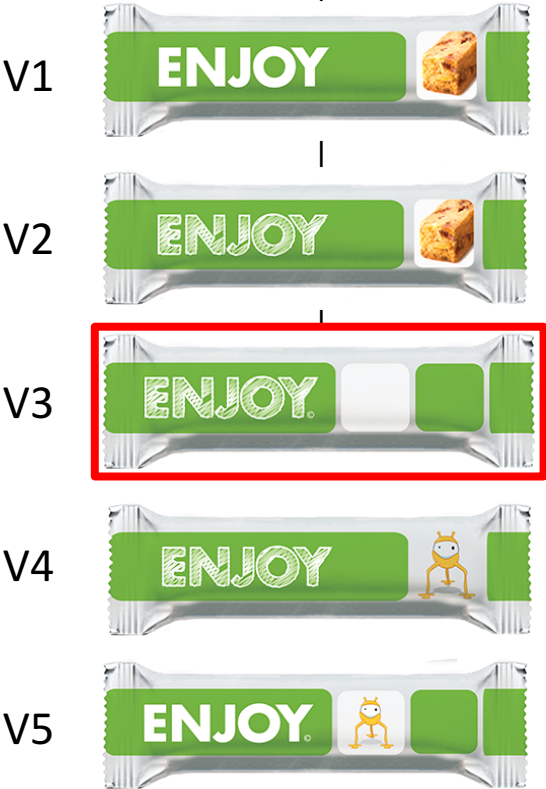


- I1 Random Lines**
- I2 Brand Graphic**
- I3 Ingredient Photo**
- I4 Product Photo**
- I5 Ingredient &Product**



SURVEY RESULTS: : Stylistic Combination of Design & Typographic Choice to Eat

		Group 1 and 2		Group 3	
		Frequency	Percent	Frequency	Percent
Valid	No Answer	0	0	1	5.0
	V1	6	15.0	3	15.0
	V1, V2	1	2.5	0	0
	V2	7	17.5	3	15.0
	V3	11	27.5	8	40.0
	V4	7	17.5	3	15.0
	V5	8	20.0	2	10.0
	Total	40	100.0	20	100.0



- V1 Normal Type & Product Photo**
- V2 Decorative Type & Product Photo**
- V3 Decorative Type & Brand Graphic**
- V4 Decorative Type & Cartoon Character**
- V5 Normal Type & Cartoon Character & Brand Graphic**

SURVEY RESULTS: : Stylistic Combination of Design & Typographic on Healthy Snack

		Group 2		Group 3	
		Frequency	Percent	Frequency	Percent
Valid	No Answer	0	0	1	5.0
	V1	9	45.0	3	15.0
	V2	3	15.0	3	15.0
	V3	6	30.0	8	40.0
	V4	1	5.0	3	15.0
	V5	1	5.0	2	10.0
Total		20	100.0	20	100.0



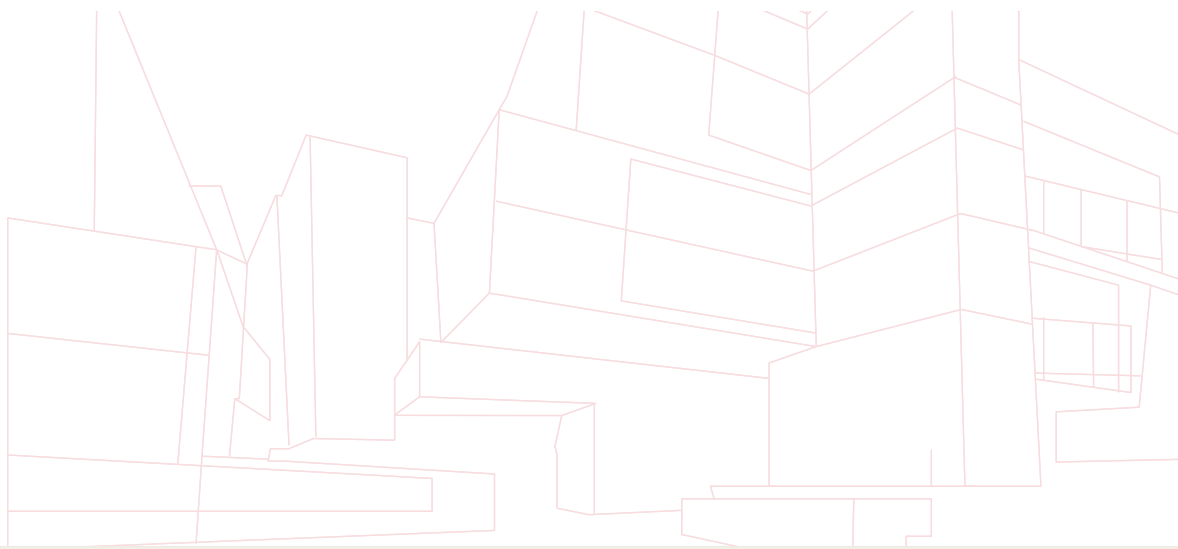
- V1 Normal Type & Product Photo**
- V2 Decorative Type & Product Photo**
- V3 Decorative Type & Brand Graphic**
- V4 Decorative Type & Cartoon Character**
- V5 Normal Type & Cartoon Character & Brand Graphic**

SURVEY RESULTS: : Information Verbal Messages to Eat

		Group 1 & 2		Group 3	
		Frequency	Percent	Frequency	Percent
Valid	B1	4	10.0	1	5.0
	B2	2	5.0	4	20.0
	B3	7	17.5	1	5.0
	B4	4	10.0	5	25.0
	B5	23	57.5	9	45.0
	Total	40	100.0	20	100.0



- B1 No Message**
- B2 Ingredient Information**
- B3 Marketing Message**
- B4 Healthy Information**
- B5 All Message**



SURVEY RESULTS: Information Verbal Messages on Healthy Snack

		Group 2		Group 3	
		Frequency	Percent	Frequency	Percent
Valid	No Answer	1	5.6	0	0
	B1	0	0	0	0
	B2	0	0	3	15.0
	B3	1	5.6	2	10.0
	B4	1	5.6	0	0.0
	B5	15	83.3	15	75.0
Total		18	100.0	20	100.0

B1



B2



B3



B4



B5



- B1 No Message**
- B2 Ingredient Information**
- B3 Marketing Message**
- B4 Healthy Information**
- B5 All Message**

Preference of Snack Choice to Eat:
playful and decorative type styles appealed most to the
participated children.



Preference of Healthy Snack Choice: the light weight type



Preference of Snack Choice **to Eat** : dynamic Images

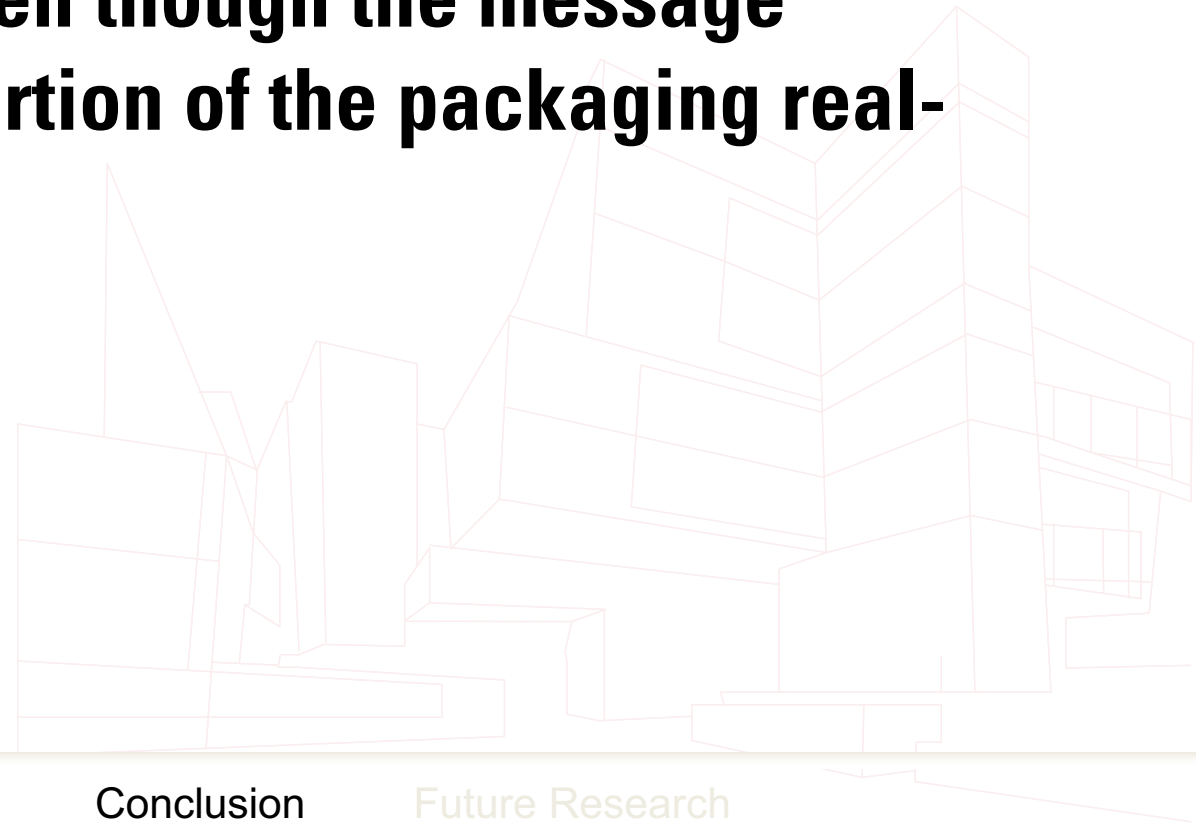


Preference of **Healthy Snack** Choice: fresh fruit photo



Children tended to consider a snack package with **simple and clean visual elements as healthier.**

Children **preferred to read the information on the package when choosing a snack to eat even though the message was given a relatively smaller portion of the packaging real-estate.**



Children considered a package with more information on it as a healthier snack than a package with less information on it. This finding supports the study done by Hodgkins et al Hodgkins et al. (2015)

“any structured and legible presentation of key nutrient and energy information on the FOP [front of package] label is sufficient to enable consumers to detect a healthier alternative within a food category when provided with foods that have distinctly different levels of healthiness”

LIMITATION OF STUDY

Data Set is from a largely middle class, Midwestern college town: Therefore, these findings may not adequately represent other demographic groups.

The snack packages were digitally-simulated, this may influence the children's decision

The test environment in a laboratory setting could influence children's decision-making processes compared to an actual purchasing environment. In addition,

limited to researching only five design variables. This study did not consider the child's prior experience with this type of snack food or their preferences with regard to snack food types.



Examine the role of visual design on the decision-making process of adults and other demographic groups.

Consider children's behavior within a psychological framework should also be researched to better understand more of the factors that their decision-making process.

Add more design variables to synthesize which design elements play a dominant role in affecting the overall perception of a snack food package.



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