Assessing the Predictive Validity of the Short Form Vaping Consequences Questionnaire: Positive Reinforcement Subscale

The main objective of this study is to assess the predictive validity of the Positive Reinforcement subscale of the Short-form Vaping Consequences Questionnaire (S-VCQ) created by Morean and L'Insalata (2017). That is, the study will investigate whether positive reinforcement, specifically flavor of e-juice, is a valued expected consequence of people who vape. Expected consequences refers to the idea that the more a person expects a consequence of a behavior and the more they value that consequence, the more they will perform that behavior to achieve said consequence. In this case, that consequence is the delivery of a preferred taste from an e-cigarette. To successfully conduct a vape study on MTSU's campus where the use of tobacco products, including vaping, is prohibited, this study uses smelling in place of vaping as there is support for smelling being an equivalent substitute for puffing an e-cigarette regarding flavor preferences (Krüsemann et al., 2020). The flavor categories tested are fruit, candy, mint/menthol, and tobacco as they seem to be the most popular in people 18-24 years old (Landry et al., 2019). Participants will sniff two different juices from each category and rate them on Liking and Familiarity. Afterwards, participants will complete a battery of vaping-related questionnaires including the S-VCQ which contains the Positive Reinforcement subscale.

It is my prediction that participants who score higher on the Positive Reinforcement subscale of the S-VCQ will consistently report higher liking ratings for flavors in the same flavor category as their usual e-juice or typically used e-juice. The variable Consistency is shown by participants giving the highest liking ratings to e-juices similar to the category that is most like their preferred e-juice flavor. Those who are Consistent, in theory, rate taste as an important

consequence of vaping on the S-VCQ. Correlation coefficients will be determined by using mean scores from the Positive Reinforcement subscale scores and the Liking and Familiarity ratings for each category of e-juice used in the study. A t-test will be conducted between Consistency (independent variable) and mean Positive Reinforcement subscale scores (dependent variable).

My responsibilities are to run participants, collect data, perform an analysis of the data, create a write-up, and present the findings. Already completed are a lit review, submission to the IRB, and the creation of the Smell Satisfaction Survey which will be used to gather scores for Liking, Familiarity, and Consistency. The study was created to complete my honors thesis of which the proposal has been accepted. The honors college has given me an opportunity to learn from an experienced researcher and the skills I will gain from this study are invaluable to my academic development as I prepare for grad school and my future career in psychology. This project differs from previous URECA projects as well as most psychology research studies. To date, research regarding the Positive Reinforcement subscale of the S-VCQ is scarce. The completion of this project may open the door for further study on the Positive Reinforcement subscale and perhaps lead to reduced use of e-cigarettes among younger generations.

As my thesis advisor, Dr. Tate has been remarkably helpful in the creation of this study. It also builds off his previous research of two other subscales of the S-VCQ: hunger reduction and negative affect control. This is the first true research experiment I have conducted and he has provided tremendous ongoing guidance and support. He has offered his office as the place where the study will be conducted, and he will recruit participants through his psychology course. He has created the Qualtrics database to store participants' data and will assist in the analysis of the data as I am a statistics novice. Dr. Tate and I have been meeting at least once a week this entire semester and we plan on continuing this throughout the summer and fall semesters as well.

References

Krüsemann, E. J., Wenng, F. M., Pennings, J. L., de Graaf, K., Talhout, R., & Boesveldt, S. (2020). Sensory evaluation of e-liquid flavors by smelling and vaping yields similar results. Nicotine & Tobacco Research, 22(5), 798–805. https://doi.org/10.1093/ntr/ntz155

Landry, R. L., Groom, A. L., Vu, T.-H. T., Stokes, A. C., Berry, K. M., Kesh, A., Hart, J. L., Walker, K. L., Giachello, A. L., Sears, C. G., McGlasson, K. L., Tompkins, L. K., Mattingly, D. T., Robertson, R. M., & Payne, T. J. (2019). The role of flavors in vaping initiation and satisfaction among U.S. adults. Addictive Behaviors, 99, 106077. https://doi.org/10.1016/j.addbeh.2019.106077

Morean, M. E., & L'Insalata, A. (2016). The short form vaping consequences questionnaire: Psychometric properties of a measure of vaping expectancies for use with adult E-cigarette users. *Nicotine & Tobacco Research*, *19*(2), 215–221. https://doi.org/10.1093/ntr/ntw205

Project Timeline

Summer Semester

May

- Buy supplies (Milestone 1)
- Prepare to collect data

June and July

- Collect data (Milestone 2)

August

- 1st through 11th
    - Collect data (Milestone 3; final milestone)

Fall Semester

August

- 28th through 31st
    - Collect data

September

- Collect data
- Write up

October

- Write up
- 30th
    - thesis draft due

November

- Thesis defense will be scheduled

December

- 6th
    - Final thesis and forms due

URECA Budget Request & Justification

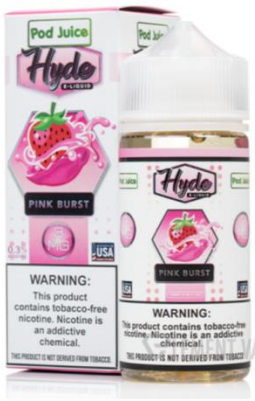
Item	Cost in dollars ($)	Use
Candy flavored e-juice—strawberry/watermelon flavor profile	14.99	To be smelled and rated
Candy flavored e-juice—blue raspberry/cotton candy flavor profile	14.99	To be smelled and rated
Tobacco flavored e-juice	12.99	To be smelled and rated
Tobacco flavored e-juice	11.99	To be smelled and rated
Mint flavored e-juice	14.99	To be smelled and rated
Menthol flavored e-juice	14.99	To be smelled and rated
Fruit flavored e-juice—berry flavor profile	14.99	To be smelled and rated
Fruit flavored e-juice—tropical flavor profile	14.99	To be smelled and rated
Approximate shipping costs	10.87	
Adult Signature Service	7.00	Fee required because the products are age restricted
Cotton swabs/Q-tips	4.94	e-juice will soak the cotton swabs to be presented to participants

Total $:	137.73*

*Subject to fluctuate depending on which e-juices are in stock. E-juice prices typically vary from $11.99 to $19.99. Webpage screenshots below show the specific e-juices we hope to purchase. They are in order as listed in the above chart.

elementvape.com/pink-burst-chew-pod-juice-hyde

Home › **Pink Burst Chew - Pod Juice x Hyde - 100mL**



PINK BURST CHEW - POD JUICE X HYDE - 100ML

$14.99

In Stock

or 4 interest-free payments on orders over **$35** with ZIP

★★★★★ 11 Reviews

Check out Pink Burst Chew by Hyde x Pod Juice, capturing a blend of sweet strawberries into a delicious candy chew that will tantalize the taste buds.

Strength *

0mg

ADD ON AND SAVE

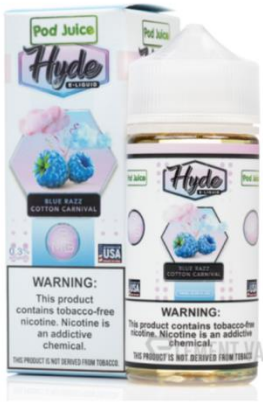
Save on Storage Bottles

-- Please Select --

QTY 1

ADD TO CART

Home › **Blue Razz Cotton Carnival - Pod Juice x Hyde - 100mL**



BLUE RAZZ COTTON CARNIVAL - POD JUICE X HYDE - 100ML

$14.99

In Stock

or 4 interest-free payments on orders over **$35** with ZIP

★★★★½ 11 Reviews

Shop Blue Razz Cotton Carnival by Hyde x Pod Juice, featuring a blend of sweet cotton candy enhanced with tangy blue raspberries to delight the tongue.

Strength *

0mg

ADD ON AND SAVE

Save on Storage Bottles

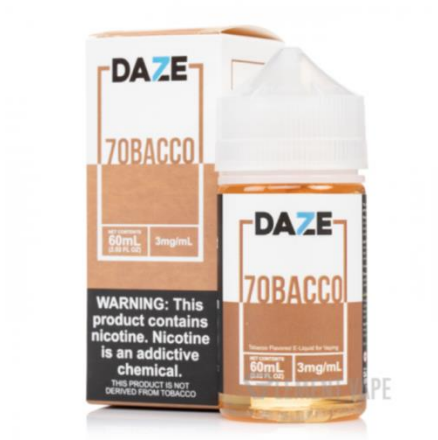
-- Please Select --

Juice of the Week

-- Please Select --

QTY 1

Home › **7obacco - 7 Daze E-Liquid - 60mL**



7OBACCO - 7 DAZE E-LIQUID - 60ML

$12.99

In Stock

or 4 interest-free payments on orders over **$35** with ZIP

★★★★½ 9 Reviews

Check out 7obacco by 7 Daze E-Liquid, blending together notes of butterscotch, caramel, and robust vanilla that will delight the taste buds.

Note: This Flavor is now formulated with Tobacco-Free Nicotine, synthetic nicotine not derived from tobacco leaves. This may result in a different experience as TFN can reduce the harshness profile typically in regular E-Liquids.

Strength *

Choose an Option...

ADD ON AND SAVE

Save on Storage Bottles

-- Please Select --

Juice of the Week

-- Please Select --

elementvape.com/bold-tobacco-air-factory

Buy VAAL Glaz 6500, Get EP4500 for FREE

Home › **Bold Tobacco - Air Factory E-Liquid - 60mL**

BOLD TOBACCO - AIR FACTORY E-LIQUID - 60ML

$11.99

In Stock

or 4 interest-free payments on orders over **$35** with ZIP

★★★★★ 2 Reviews

Check out Bold Tobacco by Air Factory E-Liquid, a rich Viriginian tobacco blend, capturing notes of robust tobacco followed by a light sweet aftertaste.

Strength *

Choose an Option...

ADD ON AND SAVE

Save on Storage Bottles

-- Please Select --

Juice of the Week

-- Please Select --

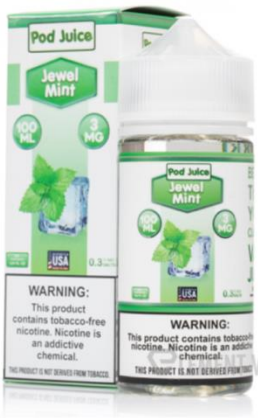
QTY — 1 +

elementvape.com/jewel-mint-pod-juice

NEW BRANDS STARTER KITS DISPOSABLES E-LIQUIDS HEMP DEVICES TANKS & RDA VAPORIZERS ACCESSORIES

Buy VAAL Glaz 6500, Get EP4500 for FREE

Home › Jewel Mint - Pod Juice - 100mL



JEWEL MINT - POD JUICE - 100ML

$14.99

In Stock

or 4 interest-free payments on orders over **$35** with ZIP

★★★★½ 50 Reviews

Discover Jewel Mint by Pod Juice E-Liquid, capturing the amazing flavor of sweet mint enhanced with cooling menthol that is sure to delight the taste buds.

Strength *

Choose an Option...

ADD ON AND SAVE

Save on Storage Bottles

-- Please Select --

Juice of the Week

-- Please Select --

elementvape.com/crisp-menthol-naked

NEW BRANDS STARTER KITS DISPOSABLES E-LIQUIDS HEMP DEVICES TANKS & RDA VAPORIZERS ACCESSORIES

15% Off UWELL Sale | Code: UWELL15

Home › Crisp Menthol - Naked 100 Menthol - 60mL

CRISP MENTHOL - NAKED 100 MENTHOL - 60ML

$14.99

In Stock

or 4 interest-free payments on orders over **$35** with ZIP

★★★★½ 113 Reviews

Check out Crisp Menthol by Naked 100 E-Liquid, featuring a pure blast of menthol that will cool the senses for a refreshingly chilly vape experience.

Strength *

0mg

ADD ON AND SAVE

Save on Storage Bottles

-- Please Select --

Juice of the Week

-- Please Select --

elementvape.com/really-berry-naked-100

Home › **Really Berry - Naked 100 - 60mL**

REALLY BERRY - NAKED 100 - 60ML

$14.99

In Stock

or 4 interest-free payments on orders over **$35** with ZIP

★★★★½ 108 Reviews

Really Berry by Naked 100 E-Liquid (formerly Very Berry) delivers the ultimate refreshers with an exhilarating fusion of blueberries combined with the sophistication of blackberries and fresh hints of lemon sugar drizzle. The culmination of sweet and tartness unlike any other.

Strength *

Choose an Option...

ADD ON AND SAVE

Save on Storage Bottles

-- Please Select --

QTY — 1 +

ADD TO CART

elementvape.com/lava-flow-naked-100

Home › **Lava Flow - Naked 100 - 60mL**

✓ You added Lava Flow - Naked 100 - 60mL to your shopping cart.

LAVA FLOW - NAKED 100 - 60ML

$14.99

In Stock

or 4 interest-free payments on orders over **$35** with ZIP

★★★★½ 211 Reviews

Shop Lava Flow by Naked 100 E-Liquid, a distinct amalgamation of rich strawberry infused with a refreshing swirl of coconut and pineapple inside one exuberant flavor profile.

Strength *

0mg

ADD ON AND SAVE

Save on Storage Bottles

-- Please Select --

Juice of the Week

-- Please Select --

QTY — 1 +

Roll over image to zoom in

Q-tips Cotton Swabs, 300 Count (Pack of 2)

Brand: Q-tips

4.7 out of 5 stars 13,038 ratings

$4.94 ($0.01 / Count)

Includes $0.31 Amazon discount. Details

Get a $150 Gift Card: Pay $0.00 ~~$4.94~~ upon approval for the Amazon Prime Rewards Visa Card. No annual fee.

Not eligible for Amazon Prime. Available with free Prime shipping from other sellers on Amazon.

Size: **300 Count (Pack of 2)**

Customer ratings by feature

For traveling	4.7
Absorbency	4.4
Sturdiness	4.4
Value for money	3.8

See all reviews

Report incorrect product information.

Similar item to consider

Amazon's Choice

Amazon Basics Cotton Swabs, 500 ct, 1-Pack (Previously Solimo)

4.5 out of 5 stars (20124)

$2.57 ($0.01/Count) prime

$4.94 ($0.01 / Count)

FREE delivery **March 29 - April 5**. Details

Or fastest delivery **March 24 - 29**. Details

Deliver to Halle - Murfreesboro 37128

In Stock

Qty: Select Qty

Minimum Order Qty: 3

Add to Cart

Buy Now

Payment Secure transaction
Ships from SENSATION
Sold by SENSATION
Returns Eligible for Return, Refund or Replacement within 30 days of receipt

Add to List

New (26) from
$5.25 & **FREE Shipping**

Other Sellers on Amazon

$9.74 ($0.02 / Count) Add to Cart