



Team Vendr: Test Plan

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Introduction

This usability testing **will** be focused on studying and evaluating the mobile Vendr application.

Vendr is a cross-platform web and mobile application designed to be a cross between a dating application, akin to Tinder, and an application for selling second hand items, akin to ebay. The client has expressed their intention to test this application for usability and user experience from both the buyer's and seller's perspective. The client is particularly focused on evaluating this application for its functionality and accessibility.

Purpose

The purpose of this study is to understand how the average user may approach and understand Vendr, to discern the thoughts and feelings of participants when using Vendr, and to note how users compare Vendr to other similarly-designed applications. This usability test will determine if the application will resonate with core groups of users and be able to deliver a Tinder- and eBay-styled experience that it promised by its design. The results of this study may provide information on possible areas of UI design improvement and unearth potential usability problems with the platform. The goal of this study is to help improve the overall user experience and usability of Vendr to help expand its market prospects.

Research Questions

Buying

- What are **buyer** priorities and frequently used functions?
- Are the items easy to view? Are functions flexible enough?
- How does the buyer feel about the "categories" search feature?

Selling

- Is the seller able to list an item to the market seamlessly?
- Is the seller able to create a robust listing that helps define their item?
- Is the **seller** able to communicate with potential buyers in a straightforward way?

General

- How easy/hard is it to successfully create an account and begin buying/selling?
- How do users feel about the interface design?
- What is a user's expectation when communicating with other users?
- Is the app easy to navigate and learn for new users?
- Is the app's language relatable/understandable?
- How does this compare to other marketplace (online selling) applications?
- What additional features does the participant want?

Participant Information

Characteristics

Participants will be evenly distributed between those with seller experience (6) and buyer experience (6). We will also select 2 additional users as a backup. We will also aim to have an even number of representatives between different genders. While the targeted age range per the client's original plan included younger users, the team decided to extend the participant selection to users ages 18 or over. We think that this will be more reflective of the current users of marketplace applications. Additionally, as we want to see how the experience differs between beginners (i.e., those with no prior experience on Tinder or eBay-like applications), we aim to divide our participant selection based on previous app experience as well. A summary of the characteristics is shown in Table 1 below.

	Characteristics	# of Participants
Participant type	Seller	6
	Buyer	6
	Backup	2
Gender	M	6
	F	6
Age	18 or over	10 (actual) + 2 (backup)
Previous App Experience	Tinder (or similar) / eBay (or similar)	6
	No previous experience with similar apps	6

Table 1. Participant characteristics and accompanying number.

Inclusion Criteria:

- Must have access to a computer with internet
- Must have familiarity with a video conferencing platform like Zoom
- The participants will ideally be comfortable with recording the evaluation meeting
- Sellers - must have experience in selling items on other platforms like eBay, Facebook Marketplace, etc.

Methodology

Introduction

The study seeks to evaluate usability and user experience of Vendr through a within-subjects comparison on the experiences of buyers and sellers identified by the Vendr development team as the core audience for the application (see Design Matrix). Each study session will be conducted within 1 hour and will be conducted virtually through Zoom. We will take advantage of Zoom’s remote control option as well as a screen recording software, OBS, to record the meeting.

Design Matrix

All of the participants will perform the same 10 tasks: (T1) Sign up, (T2) Login, (T3) List an Item, (T4) Send a Message to the Seller, (T5) Search, (T6) Find Recent Offers, (T7) Find Recent Messages, (T8) Find Product Details, (T9) Edit Profile, and (T10) Find Account Settings.

Sellers	Tasks									
P1	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
P2	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
P3	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
P4	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
P5	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
P6	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
Buyers	Tasks									
P7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
P8	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
P9	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
P10	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
P11	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
P12	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10

Table 2. Task division for each participant. Participants 1-6 will be sellers while participants 7-12 are categorized as buyers. All participants will perform the same tasks.

Recruitment process

1. We will reach out to friends and family who may be interested in participating in the usability evaluation. We will also share this through social media outlets like

Facebook and Reddit, including information about the topic, duration, study deadline, compensation, and contact information.

2. Prospective participants will be asked to fill out a screening questionnaire. After review, those who are most qualified will be contacted using their preferred method to schedule the evaluation.

Procedure

Each session will have 1 moderator and 1 note-taker. Participants will be given a short introduction on the application and be asked to complete a non-disclosure agreement (NDA) as well as a background questionnaire before proceeding to the formal evaluation. We will also ask their consent to record the session. After the participant goes through different scenarios (shown in Table 4 below) presented by the moderator, s/he will be asked to complete a post-study questionnaire and a debriefing session to share additional thoughts about the system. Information regarding their preferred method of compensation will also be gathered at the end of the evaluation.

Activity	Time	Details
Introduction	5 Minutes	Background on the app, NDA, consent
Background questionnaire	5 minutes	Fill out online questionnaire
Think Aloud Practice	5 minutes	Moderator-lead example of the "think aloud" method
Evaluation	30 minutes	Perform all 10 tasks and ask the post-test questionnaire as well as any follow questions or clarifications
Post-study questionnaire	15 minutes	Fill out online questionnaire, debrief, and wrap up the session

Table 3. Outline of the usability evaluation.

Task	Task Criteria		Data Collection
	Entry	Exit	
#1: Signup	Upon download of application, tap on the sign up button	Sign up is complete when user sees the home screen	QL - How easy was it to sign up? QN - # of steps, # of errors QN - Time spent
#2: Login	When opening for the first time, tap on the login option	Login is complete when user sees the home screen	QL - How easy was it to login? How satisfied is the user with the options? QN - # of steps, # of errors QN - Time spent
#3: List an Item	From the home page, list a new item for sale from your account.	A new item has been listed under your profile with the criteria you provided.	QL - How easy was it to list the item? How satisfied is the user with options for listing? QN - Time Spent
#4: Send a Message to a Seller	From the the home page, and contact the seller	A message has been sent to a seller	QL - How easy was it to message the seller? Was the user satisfied with the messaging system? QN - Time Spent
#5: Filter a Product	From the home page, search for a specific item or a group of items and submit your request.	Successfully filtered a group of products.	QL - How easy was it to filter a specific product? Was the navigation well laid out? QN - Time Spent

#6: Find Recent Offers	<p>Navigate from the home page after logging in to locate if you have received any new offers.</p>	<p>You can see how many offers you have received recently.</p>	<p>QL - How easy was it to locate recent offers that you have received? Is the navigation user friendly? QN - Time Spent</p>
#7: Find Recent Messages	<p>Navigate to the "Buying/Selling" page using the top tab bar controller</p>	<p>Swipe up to the messages container to view recent messages</p>	<p>QL - Know if the user is able to identify and relate iconography to function QN - Identify number of taps and validate navigation structure</p>
#8: Find Product Details	<p>Click on the "i" icon on the product card to get more information</p>	<p>Swipe to get all the information about the selected product</p>	<p>QL - Know if the user is able to identify and relate iconography to function QL - Identify if the location of the icon is discoverable to the user.</p>
#9: Edit profile	<p>Click on the default avatar icon which is on the top left of the home page. Then, click on the edit button which is on the top right of the user's profile picture.</p>	<p>Successfully find the page of the "edit profile".</p>	<p>QN - Time on task QL - How easy was it to find? QL - Any participants' comments</p>

<p>#10: Find settings</p>	<p>Click on the default avatar icon which is on the top left of the home page. Then, tap on the setting button.</p>	<p>Successfully find the page of the "Settings".</p>	<p>QN - Time on task. QL - How easy was it to find? QL - Any participants' comments.</p>
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Table 4. Task list showing entry and exit criterias as well as the respective data collection methods.

Task	Scenario
Signup	You find the app on the app store. You find it interesting and download it. You'd like to check out the application for the first time.
Login	You have previously tried Vendr's website and found it really fun! You see it's on the app store and so you download it. You want to get back to your profile and start window shopping.
List an Item	You need money because there's a pandemic happening and the world is in economic decline. You just found your old GameCube lying around and you realized you haven't played it in years. You want to list it for someone else to hopefully buy them.
Send a message to a seller	You have recently found a nice set Supreme Hoodie on Vendr and you need to know if the seller has ever spilled anything on the hoodie.
Filter a Product	Your monitor recently stopped working. You want to upgrade your existing setup and are looking to buy a curved monitor specifically.
Find Recent Offers	You are waiting to sell off a few things which you have listed. You have recently been receiving messages from potential buyers. You want to interact with someone willing to buy your listed items.
Find Recent Messages	You remember you made an offer to a seller whose product you were interested in buying, now you want to follow up on the details of that offer.
Find Product Details	You are interested in buying an item but looking at the photos it looks like a different model, you want to confirm if it is the model you want to buy and want to look more into the details of the product.
Edit profile	You have recently moved and as a seller in Vendr, in order for the buyers to find you, you need to re-edit the address in the application.
Find settings	As a seller in Vendr, you want to turn on the notifications to prevent from missing any buyer's messages.

Table 5. Scenarios presented to participants per task.

Test Environment

Location and setting

We will conduct the usability testing completely online through Zoom. Participant videos will be recorded using Zoom as well. Vindr will be set up on the moderator's device before the evaluation; participant can interact with the app through Zoom's remote desktop control. The moderator will use a screen-recording software, Open Broadcaster Software (OBS) to record audio and on-screen activity (i.e., user actions and mouse clicks) throughout the evaluation. Participants are free to join the session from any physical location, but are encouraged to be in distraction and noise-free environments.

Test Personnel Rules

In order to avoid overwhelming the participants with multiple users in the Zoom call, we have decided to rotate team members between the following roles:

Moderator

The moderator will be in the zoom meeting, and guide the participants during the whole evaluation. S/he will greet the participant, and explain the study overall and any sub-tasks. S/he will also go over the consent form and nondisclosure agreement with the participant, conduct all questionnaires, and ask unscripted questions to better understand a participant's comments or actions during or after a task. If necessary, the moderator may intervene during a task in order to help the participant. Finally, the moderator will debrief and thank them for their participation.

Observer/Note Taker

The observer will note participant comments and actions during the study. In addition, they will help to track the time for each task and the whole session. The observer will also be in charge of recording the Zoom session.

Deliverables

Reports

The questionnaires will include both quantitative and qualitative data and will be phrased based on the research questions highlighted above:

Quantitative Data:

- Participant demographic and background information
- Number of clicks to complete a task
- Number of incorrect user interface selections and failed tasks
- Number of other errors encountered during the evaluation
- Likert ratings on the flexibility, look-and-feel, expectations, ease of navigation, and comparison between other, similar applications
- Likert ratings on the app performance from either the buyer or seller's perspective

Qualitative Data:

- User comments and questions during test sessions, such as those regarding: how easy they find the application to use, the design of the UI, intuitiveness, and expectations
- Open-ended questions from the questionnaire
- Thoughts, comments, and suggestions from the debriefing session

Presentation

We will share a final presentation both to the class and the client. The presentation will include all of the data collected in the questionnaires and the debriefing session along with an explanation of their significance. We will also provide answers to our research questions, video snippets of important interactions, and a highlight reel.