



Airbnb vs HomeAway

HF 751 - Final Project

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Executive Summary



Study Information

- Online unmoderated usability test using UserZoom with tasks and questions.
- Friends & Family and MTurk recruit via email with general population unfamiliar with either the Airbnb or HomeAway websites.

Performance Metrics

- Task Time: Tasks were completed significantly faster on AirBnB.
- Task Accuracy: No significant difference between the two sites.
- Task Ease: People found tasks significantly easier to complete on AirBnB.


Self-Reported Metrics

- SUS: No significant difference between the sites.
- NPS: No significant difference between the sites.

Final Verdict

- Airbnb performed better on given tasks than HomeAway did.
- Both websites could be improved in the usability of their help sections.

Method of study

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- Between subjects study design to compare two competing home-share sites.
 - Target users: General population users who are new to either Airbnb or HomeAway.
 - Recruiting methods: Friends & family email link and Mechanical Turk workers.
 - Tasks asked: 5 questions targeting specific areas of the services, such as:
 - Signing up for the service.
 - Booking a listing for certain dates.
 - Finding information about the home owners.
 - Exploring listing one's own home for rent.
 - Finding info in the Help Centers.
 - Data collected: Task accuracy, time-on-task, task ease rating.
 - Questions asked: SUS and NPS, demographic information and travel experience

Participant Demographics



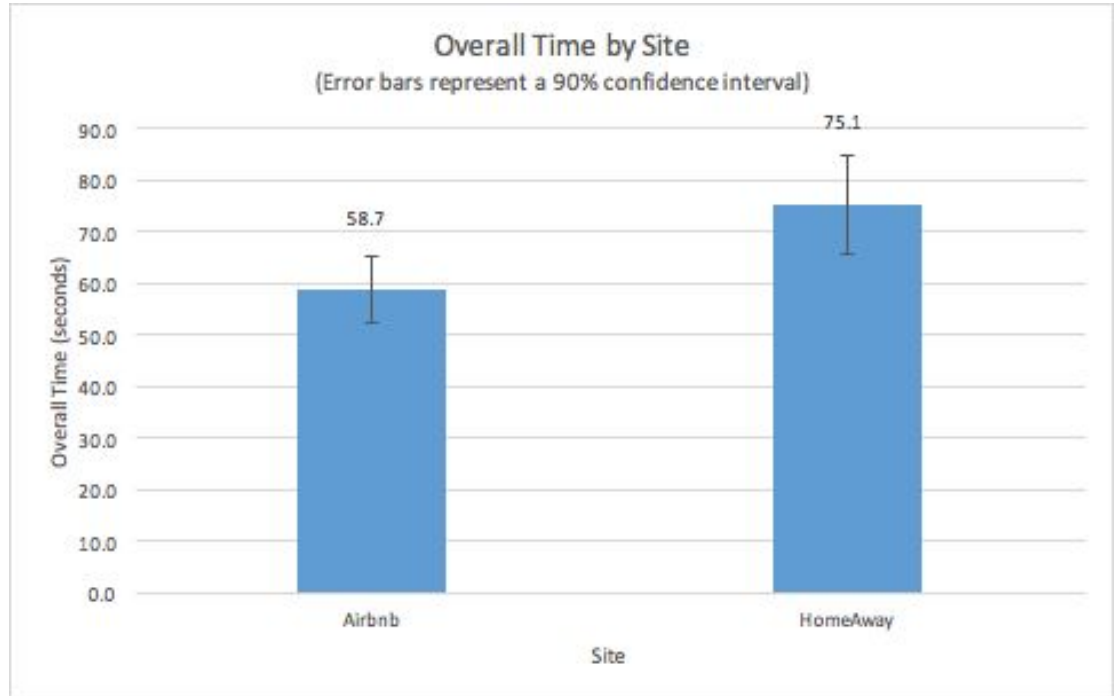
The Airbnb study had 19 participants. The HomeAway study had 23 participants.

Both Airbnb and HomeAway participants self-reported the following information about themselves (see appendix slide for more details):

- Similar familiarity with the site they tested, at an average of **1.8 out of 5**, where 1 was not at all familiar and 5 was very familiar
- Travel frequency of 1-3 times a year
- Most commonly stay in hotels, rental properties, and with family and friends when traveling
- Between 25-44 years of age
- Roughly 50/50 split by gender identity

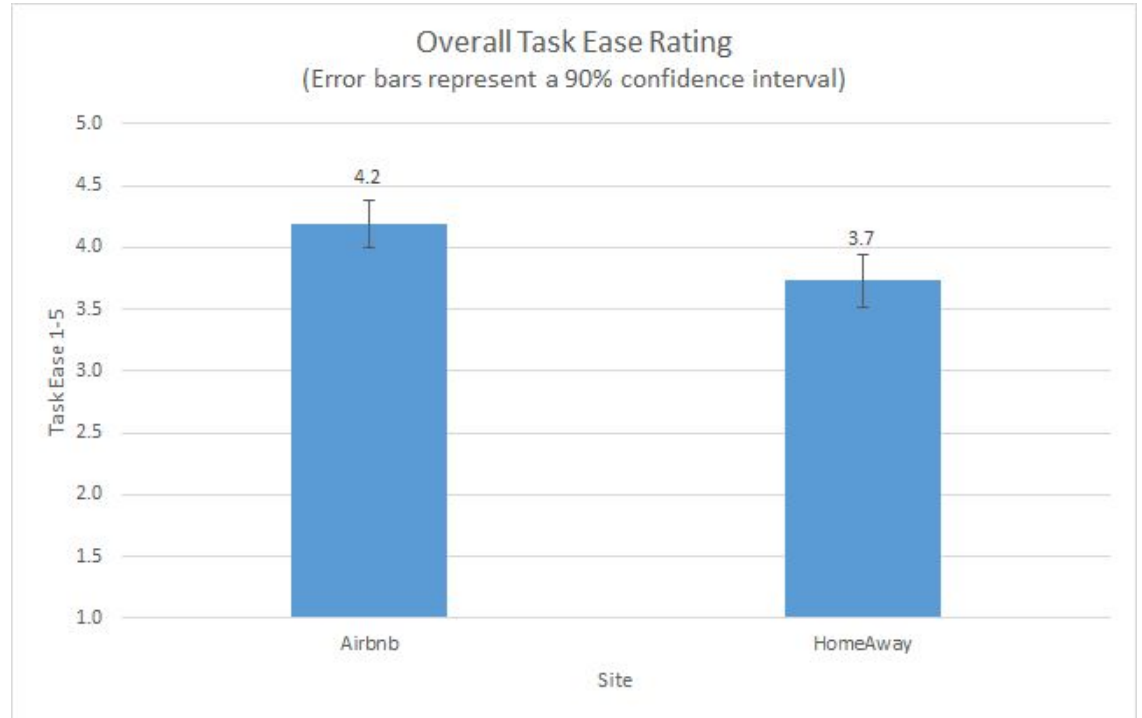
Overall Task Time

Airbnb participants performed significantly faster overall on tasks than HomeAway participants.



Overall Task Ease

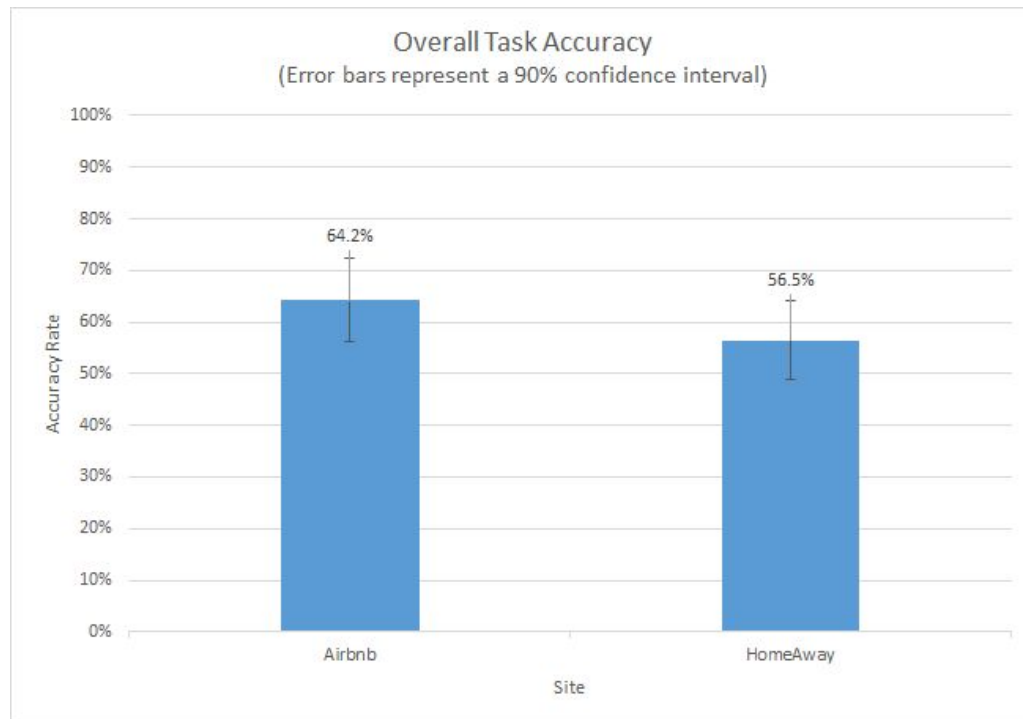
Airbnb participants reported a significantly better (easier) task ease rating than HomeAway participants.



Overall Task Accuracy

The difference in overall task accuracy between Airbnb and HomeAway is not statistically significant.

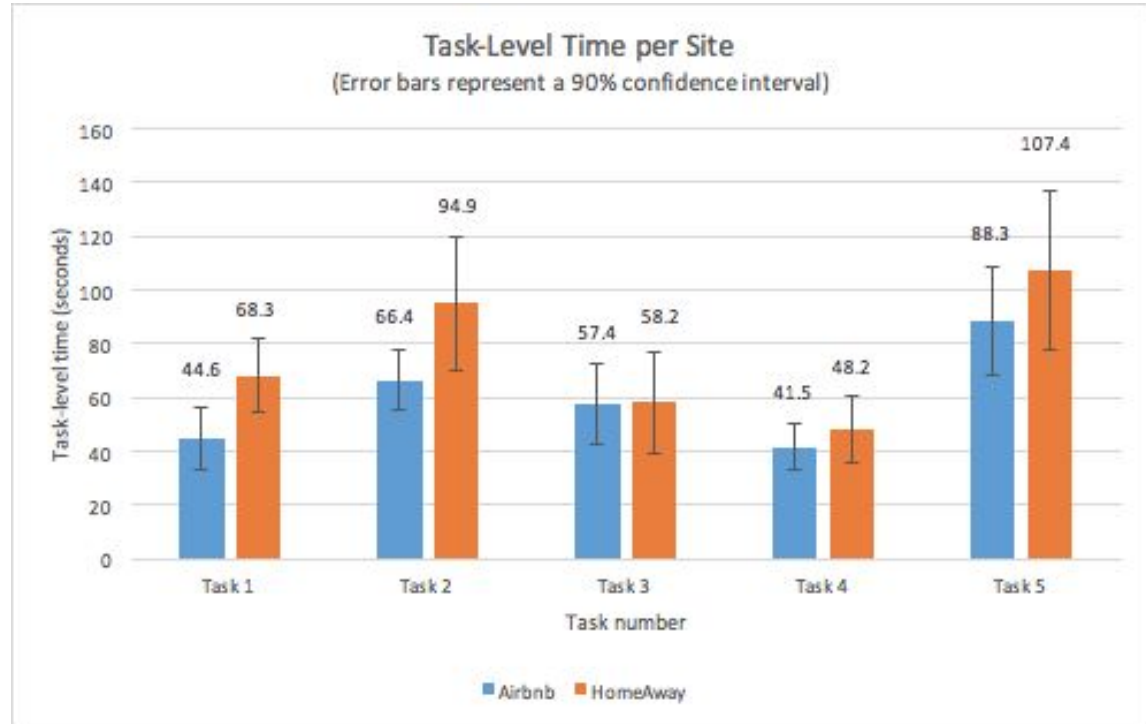
This was determined through the Adjusted Wald method and a Chi Square Test.



Task-level Time

Airbnb participants performed significantly faster on Task 1 than HomeAway participants.

There was no significant difference between task-time for the two sites for Tasks 2-5 (Tasks 2 and 5 verified by t-test) though Task 2 is approaching significantly faster for Airbnb.

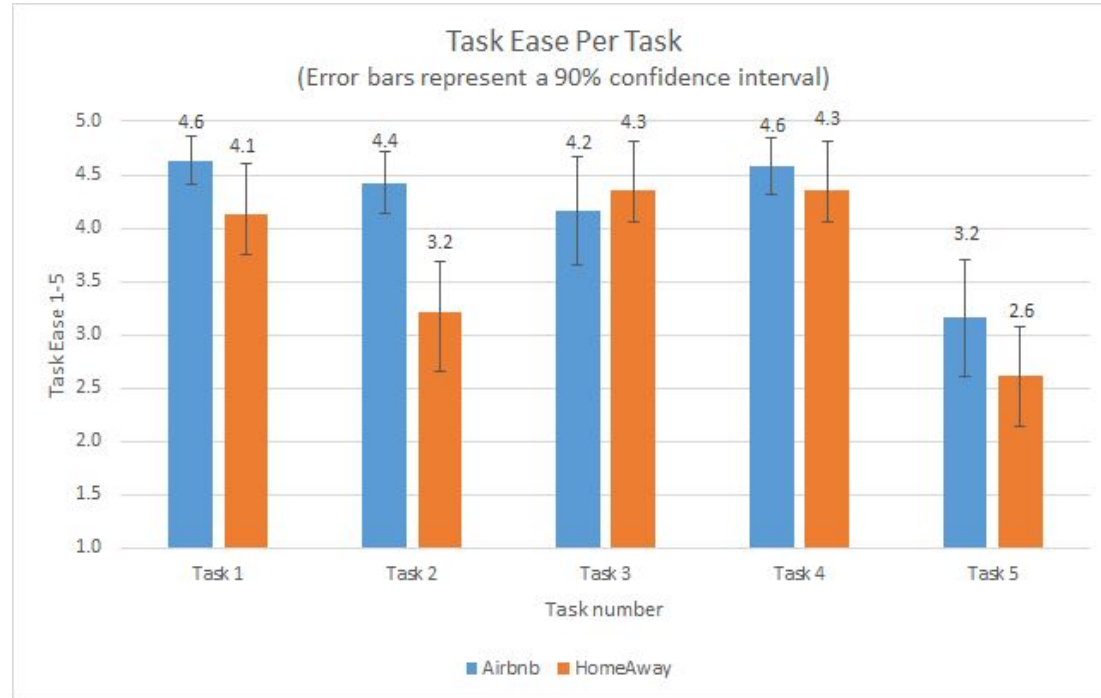


Task-level Ease

For Task 1, participants rated Airbnb as significantly easier than HomeAway ($.08 < .1$)

For Task 2, participants rated Airbnb as easier and the difference is highly significant.

For Tasks 3-5, there is no significant difference in the task ease ratings between Airbnb and HomeAway (verified by t-test).

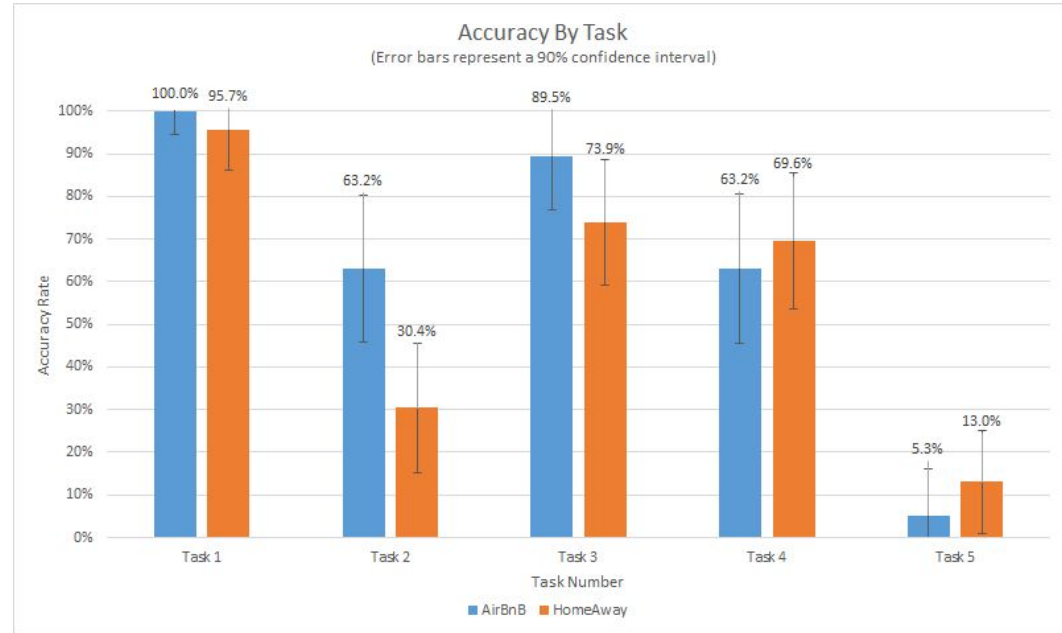


Task-level Accuracy

For Task 2, participants were significantly better at accurately selecting the correct answer when using AirBnB than when using HomeAway (Chi Square = 0.03 < 0.1)

For all other tasks, there was no significant differences in accuracy between the two websites.

It should be noted that both websites had low accuracy for Task 5.



System Usability Scale (SUS) Questions

Each statement was presented with a 5-point rating scale of “Strongly Disagree” to “Strongly Agree”

An overall SUS score was calculated for each participant ranging from 0 to 100 and averaged within versions for an overall SUS score per version

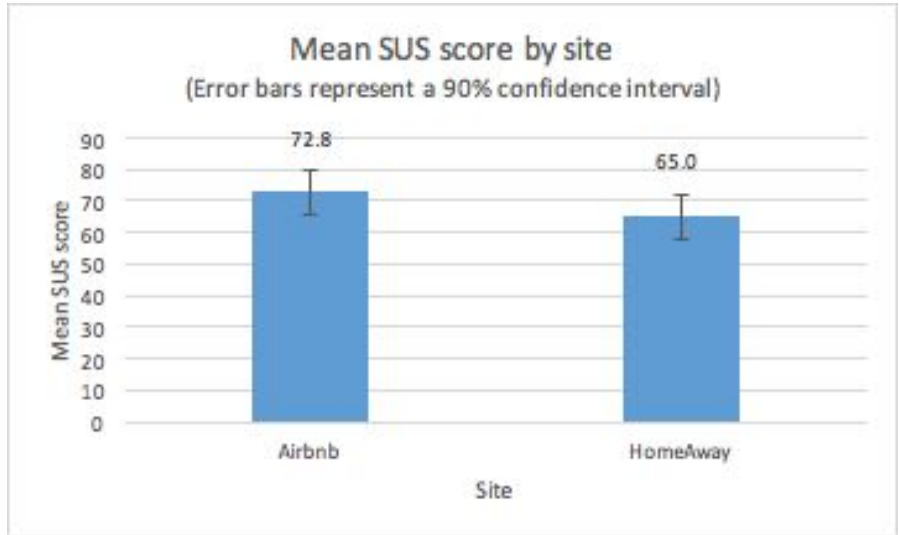
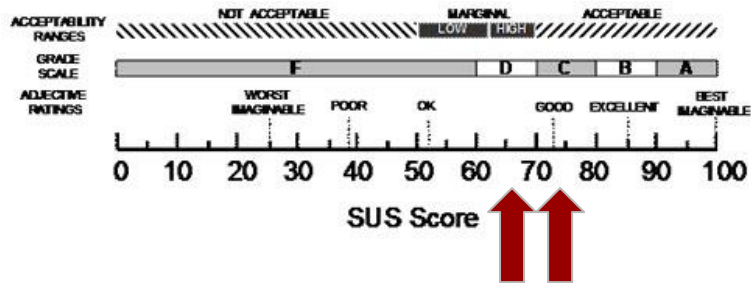
	Strongly Disagree				Strongly Agree
1. I think I would like to use this website frequently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I found the website unnecessarily complex.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I thought the website was easy to use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I think I would need Tech Support to be able to use this website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I found the various functions in this website were well integrated.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I thought there was too much inconsistency in this website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I would imagine that most people would learn to use this website very quickly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I found the website very cumbersome to use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I felt very confident using the website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I need to learn a lot about this website before I could effectively use it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SUS Scores

Neither site had a significantly different SUS score.

Compared to a national average calculation of 66.4, Airbnb and HomeAway both scored higher, at 65.0 and 72.8 respectively

(<http://www.measuringux.com/SUS-scores.xls>)



Net Promoter Score (NPS)

Based on the question: “How likely is it that you would recommend [Company X] to a friend or colleague?” With a 0-10 rating scale:

0-6 = Not at all likely

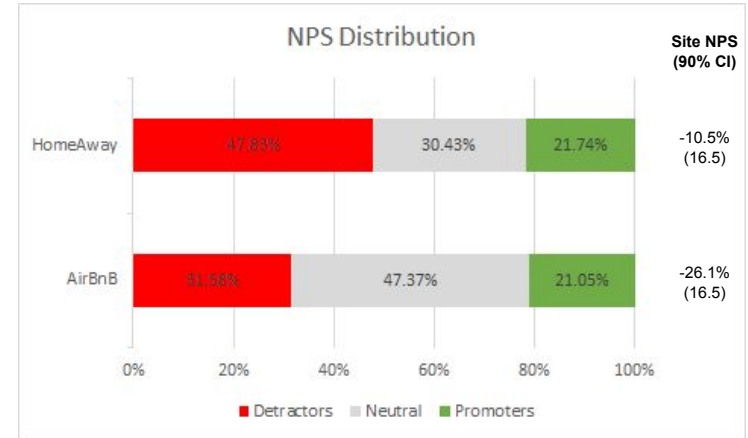
7-8 = Neutral

9-10 = Extremely likely

The NPS for AirBnB was -10.5 (SD = 16.5).


The NPS for HomeAway was -26.1 (SD = 16.5).

The differences in NPS scores are not significant.



Scores in the 20s-30s are considered good NPS scores

Conclusion




Overall, Airbnb participants performed significantly better (speed & ease of use) on the selected tasks than HomeAway participants, lending to the conclusion that Airbnb is a better user experience than HomeAway for this segment of users on these types of tasks.

A possible reason for HomeAway's performance decrement may be due to their segmentation of "Travelers" and "Owners" in many functional areas of the site, forcing visitors to self-identify to locate certain content.

Task 5, involving finding content in the Help area of the sites, provided participants of both websites with the greatest difficulty. This may represent issues in the information architecture of both sites; additional research is recommended in the form of tree tests or card sorting.

Appendix

Retrospective

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- UserZoom relies on unique URLs for automated task success. Airbnb lacked these for several tasks, and we had to create targeted questions to validate task success.
 - Using Mechanical Turk in the future will require a much more stringent screening process to ensure participants fall under the anticipated demographics. Many MTurk participants could not answer the price question successfully because they were seeing prices in INR (rupees), and our validation expected USD.
 - Due to the inclusion of MTurk participants, we should include a calibration task in the center of the study to better identify “professional survey-takers” and clean their data in the future.

Participant Demographics

Question	Airbnb	HomeAway
Before taking this study, how familiar were you with [the site]? (1 = Not at all familiar and 5 = Very familiar)	Mean: 1.8	Mean: 1.8
Roughly how many times a year do you travel away from your primary and/or secondary residences? (Never, 1-3, 4-6, 7-9, 10+)	Most common: 1-3 times/year	Most common: 1-3 times/year
In the last 5 years, where have you stayed when you have traveled? (Hotel, Hostel, Rental Property, Time-share, With Friend/Family Member, Other)	Most common: Hotel, Rental Property, With friend/family member	Most common: Hotel, Rental Property, With friend/family member
What is your age? (Under 18, 19-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84,85+)	Most common: 25-34 and 35-44 years old	Most common: 25-34 years old
To which gender do you most identify? (Female, Gender Variant / Non-Conforming, Male, Transgender Female, Transgender Male, Prefer not to answer, Prefer to self-describe)	47% female 52% male	52% female 4% gender variant/non-conforming 43% male

Task List: AirBnB

Prompt	Start URL	Validation Question	Correct Answer
You're interested in the services Airbnb offers, and you want to create an account for this website. Find the different methods you can use to create an account so that you can use Airbnb to go on vacation. (You do not have to actually create an account; hit "Success" when you find the account creation page.)	Homepage	Which of these methods is NOT a valid method of creating a new account? A. With a Facebook Account B. With a LinkedIn Account C. With an Email Address D. With a Google Account	With a LinkedIn Account
You are making travel plans with a friend to go to Grand Rapids, Michigan, from March 11th to March 19th, 2018. Before you make the booking, you want to find out what the total cost for your entire stay will be. Find the total cost for you and your friend to stay here from March 11th to March 19th, then hit "Success" on the taskbar to answer a question about what you found.	Home Listing	If you want to stay at this location from March 11th to March 19th, how much would you be charged for your stay? A. \$603 B. \$592 C. \$622 D. \$614 E. A different price	\$603
You've found an interesting listing, and you want to learn more about the property from the owners or hosts. Find how much time the hosts of this listing take to reply to inquiries, then hit "Success" on the taskbar to answer a question about what you found.	Home Listing	How quickly does this host typically respond to messages? A. Within a few days B. Within 8 hours C. Within a day D. Within a week	Within a few days
You want to start renting out your home when you're not there and you want to find out an estimate of how much you could charge using HomeAway. Where would you go to find that information? (You do not have to enter in any details about your home; hit "Success" when you get to the page where you would be able to accomplish this task.)	Homepage	URL Validation	Home Pricing Page
You're considering listing your home for rent, but you want to understand more about the refund policies you have available if a guest decides to cancel their booking. Try to find the page that explain the various refund policies a host may implement if a guest decides not to stay and requests a refund from the host. (Hit "Success" when you are on the page where you would be able to find this information).	Homepage	URL Validation	Cancellation Policy Page

Task List: HomeAway

Prompt	Start URL	Validation Question	Correct Answer
You're interested in the services HomeAway offers, and you want to create an account for this website. Find the different methods you can use to create an account so that you can use HomeAway to go on vacation. (You do not have to actually create an account; hit "Success" when you find the account creation page.)	Homepage	Which of these methods is NOT a valid method of creating a new account? A. With a Facebook Account B. With a LinkedIn Account C. With an Email Address D. With a Google Account	With a LinkedIn Account
You and three friends are making travel plans to go to Grand Rapids, Michigan, from March 11th to March 19th, 2018. Before you make the booking, you want to find out what the total cost for your entire stay will be. Find the total cost for you and three friends to stay here from March 11th to March 19th, then hit "Success" on the taskbar to answer a question about what you found.	Home Listing	If you want to stay at this location from March 11th to March 19th, how much would you be charged for your stay? A. \$714 B. \$843 C. \$802 D. \$786 E. A different price	\$843
You've found an interesting listing, and you want to learn more about the property from the owners or hosts. Find how much time the hosts of this listing take to reply to inquiries, then hit "Success" on the taskbar to answer a question about what you found.	Home Listing	How quickly does this host typically respond to messages? A. Within an hour B. Within 8 hours C. Within a day D. Within a week	Within an hour
You want to start renting out your home when you're not there and you want to find out an estimate of how much you could charge using Airbnb. Where would you go to find that information? (You do not have to enter in any details about your home; hit "Success" when you get to the page where you would be able to accomplish this task.)	Homepage	URL Validation	Home Pricing Page
You're considering listing your home for rent, but you want to understand more about the refund policies you have available if a guest decides to cancel their booking. Try to find the page that explain the various refund policies a host may implement if a guest decides not to stay and requests a refund from the host. (Hit "Success" when you are on the page where you would be able to find this information).	Homepage	URL Validation	Cancellation Policy Page