No part of the candidate's evidence in this exemplar material may be presented in an external assessment for the purpose of gaining an NZQA qualification or award.



Level 1 Digital Technologies RAS 2023

92006 Demonstrate understanding of usability in human-computer interfaces

EXEMPLAR

Excellence

TOTAL 08

Instructions

The task in this assessment is in four parts:

- In part (a), you will refer to an interface you have studied at school ("your interface").
- In part (b) you will refer to the video, which shows a user interacting with a website.
- In part (c) you will compare the usability of the interfaces.
- In part (d) you will make recommendations on how to improve the usability of both interfaces.

You are required to discuss the usability of the interfaces in terms of mātāpono Māori (Resource A) or the usability heuristics (Resource B) on page 3.

You may include up to five screenshots from each interface to illustrate your answers. Do not use more than 10 in total.

Read all parts of the task before you watch the video. You may play, pause, and restart the video as often as you like. *Note: the video has no sound.*

Resource A: Mātāpono Māori

- the accurate and clear use of te reo Māori (including macrons) within the interface
- whether tools such as spell-checking and word prediction work accurately with te reo Māori
- how the interface facilitates and allows for the expression and use of tikanga and mātauranga Māori.

Resource B: Nielsen's 10 Usability Heuristics

"Usability heuristics" are general principles or "rules of thumb" to help measure the effectiveness of a user interface. You will be familiar with Jakob Nielsen's 10 usability heuristics listed below.

- 1. Visibility of the system's status
- 2. Match between the system and the real world
- 3. User control and freedom
- 4. Consistency and standards
- 5. Error prevention
- 6. Recognition rather than recall
- 7. Flexibility and efficiency of use
- 8. Aesthetic and minimalist design
- 9. Help users recognise, diagnose, and recover from errors
- 10. Help and documentation

Source (adapted): Nielsen, J. (1994, April 14, updated 2020, November 15). *10 usability heuristics for user interface design*. Nielsen Norman Group. https://www.nngroup.com/articles/ten-usability-heuristics/

Assessment Task

Maia is studying usability in human-computer interfaces and has asked you to help her learn key concepts by discussing an interface that you have studied at school and one that she has used recently.

An interface that you have studied at school

State the name of your interface.
Animates
Briefly describe the purpose of your interface. What does the user want to achieve while they are using it?
The purpose of Animates is to help users shop for pet products. The user wants to be able to use the website to look at, and order products for their pets.

An interface that Maia has used recently

Maia recently shopped online on the *Little Shop of Taonga* website for her brother's 18th birthday gift.

You have been provided a video of Maia interacting with the website.

In the video, Maia:

- reads the "About Us" page and subscribes to the newsletter
- creates an account and adds her address
- browses categories and adds items to the cart
- searches the FAQs for the returns policy and uses the chat feature to find out shipping times
- decides on a gift, removes an item she doesn't want from the cart, and checks out
- uses the contact form for an enquiry about commissioning a unique piece for her parents' anniversary

Video timings

Activity	Timestamp
(1) Reads "About Us" page and subscribes to the newsletter	00.06
(2) Creates an account and adds her address	01.30
(3) Browses categories and adds items to the cart	03.40
(4) Searches the FAQs and uses the chat feature	04.58
(5) Checks out	06.42
(6) Uses the contact form for an enquiry	07.28

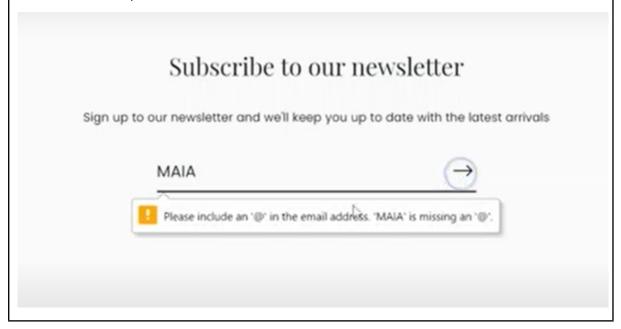
- (b) Choose THREE of the activities from the list on page 5.
- (i) For each activity, explain how mātāpono Māori OR usability heuristics are used. If you discuss usability heuristics, provide a description of each.

You may support your answer with screenshots from the video.

Activity: Reads "About Us" page and subscribes to the newsletter

Response:

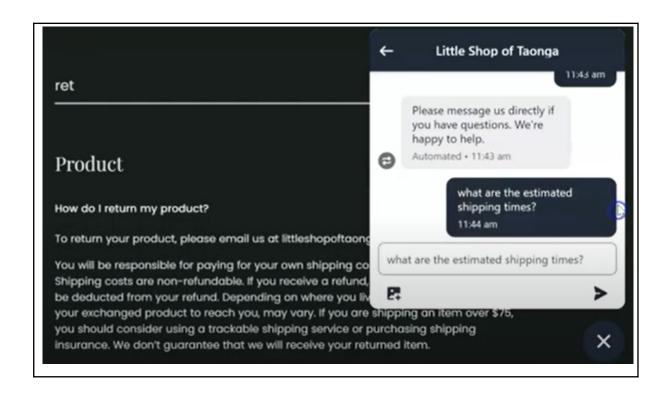
Helps users recognise, diagnose and recover from errors. This helps the user when they do something wrong and shows them how to do it properly. We can see that the website helps users recognise and recover from errors when Maia types an incorrect email address. It tells her that she has to write a proper email address, since she has done it incorrectly.



Activity: Searches the FAQs and uses the chat feature

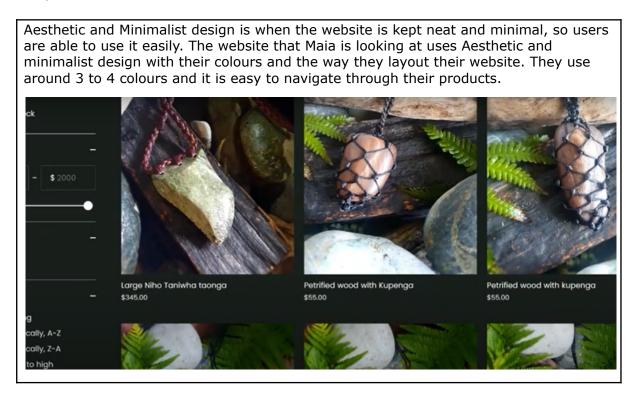
Response:

Help and documentation is when the website uses documentation to help and guide the user. The *Little Shop of Taonga* website uses help and documentation with a chat bot and instructions to questions. She is able to read what she wants to know and interact with the bot about things she wonders.



Activity: Browses categories and adds items to the cart

Response:



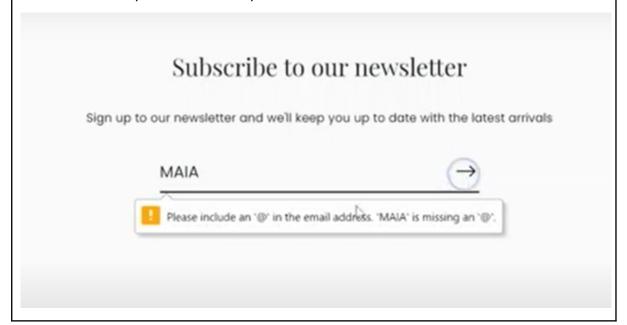
(ii) Evaluate how successfully mātāpono Māori OR usability heuristics have been applied in each activity.

You may support your answer with screenshots from the video.

Activity: Activity: Reads "About Us" page and subscribes to the newsletter

Response:

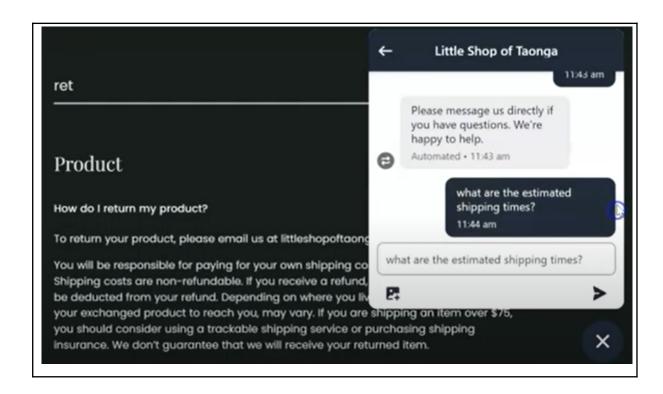
The website helps users recognise, diagnose and recover from errors quite efficiently. The website is able to tell whether a proper email has been typed in and even recommends to the user what they need to do to fix the mistake. This helps the users a lot because they can know if they made a mistake and how to fix it.



Activity: Searches the FAQs and uses the chat feature

Response:

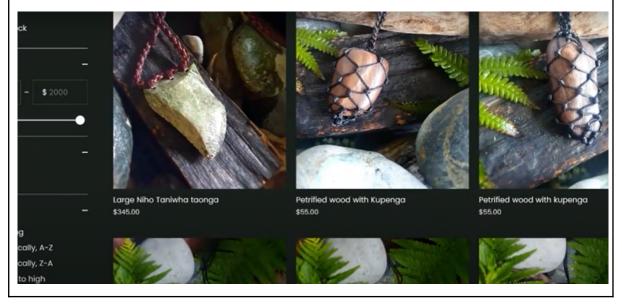
The Little Shop of Taonga website uses help and documentation quite well. They have both a FAQs page and a chat bot, which can help users find out what they want to know, or provide solutions to what users need help with. They have good explanations to common questions as well as a chat bot for unanswered questions. This is good for users as it can be really helpful when they have questions.



Activity: Browses categories and adds items to the cart

Response:

The website uses Aesthetic and Minimalist design efficiently. It keeps their colours limited to Dark green, white and black, and uses images which match each other or give off similar vibes. They also use a simple layout which people are used to, and keep the website minimal. This is really useful because users would enjoy looking at the website and can navigate through it easily, making the website better.

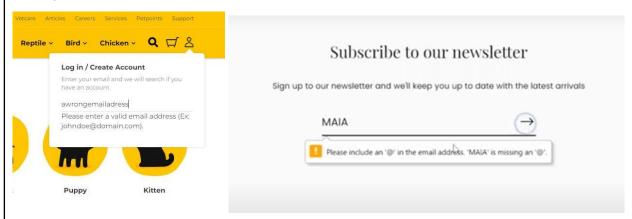


Comparison

(c) Compare the *Little Shop of Taonga* interface with your interface. Discuss the similarities **and** differences between the interfaces, and identify which addresses mātāpono Māori OR usability heuristics best, and why.

Use screenshots to support your answer.

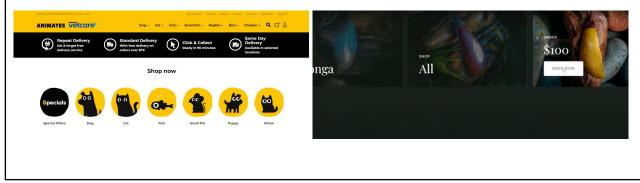
One similarity between Animates and The Little Shop of Taonga website is that they both help users recover from errors. When an incorrect email is typed in Animates, it says to enter a valid email address, similar to the Little Shop of Taonga website. The Animates website has done this better, because they have an example of an email and are more complete with their explanation. The Little shop of Taonga only says to add an @, and it does not say to add a full email address.



Both websites also use symbols to represent the search and the cart button. This addresses the usability heuristic of recognition rather than recall, as people are used to these symbols and they are able to recognise them easily.



One difference between Animates and the Little Shop of Taonga is that they have different Aesthetics. The Animates website has a more bright and yellow aesthetic while The Little Shop of Taonga has a more environmental, calm, green aesthetic. They both also use different images. While animates uses animated images, The Little Shop of Taonga uses real images. Both work quite well with their own business and suit the website they are used for.



Recommendations

(d) (i) Recommend improvements that could be made to **your interface** by applying mātāpono Māori OR usability heuristics. Explain how these will improve the usability of the website in terms of the user's experience.

You may support your answer with screenshots.

An improvement that Animates can make is making all of the fonts the same colour (either black or white) because some of the texts are hard to read. They can also change the boldness on all of the symbols so that they match. This will help improve the website's consistency, which will lead to the website being easier to use. Users will also be able to see the texts/symbols better.



(ii) Recommend improvements that could be made to the *Little Shop of Taonga* interface by applying mātāpono Māori OR usability heuristics. Explain how these will improve the usability of the website in terms of the user's experience.

You may support your answer with screenshots.

An improvement that The Little Shop of Taonga can make is by changing some parts to symbols. This will help users be able to recognise parts of the website without having to read the small text. The website could also improve the way they help users recover from errors by changing their wrong email warning from just an @ to @gmail.com.

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Excellence

Subject: Digital Technologies

Standard: 92006

Overall grade: 08

Grade	Marker commentary
E8	The candidate has described the role of their interface.
	They have accurately identified multiple heuristics for each of the three activities.
	They described each heuristic in their own words and explained how they were applied in each activity.
	In their explanation, the candidate demonstrates a deep understanding of the heuristics and how they have been used to improve the usability of the interface. They included screenshots to illustrate their answers.
	The candidate provided a detailed comparison of the two interfaces, and identified multiple similarities and differences between them. They evaluated how effectively each interface applied heuristics and stated which interface did so better, and why.
	The candidate suggested multiple improvements to both interfaces. They justified each improvement by explaining how they would improve usability, and referenced the appropriate heuristic each time.