

Ready, set...? End-user testing of an AR treasure hunt learning game





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Context to facilitate AR active participation in higher education technology















App description



- exploratory & contextualized learning
- increases learner interest
- contributes to positive learning experience





App description



learning game



 fun learning process
 abstraction of reality & element of fantasy in teaching process

















User testing descriptive evidence anecdotal evidence observation interview survey Usability measures of users' performance asking users opinions of app noting difficulties with the interface





• small numbers of testers (5 to 10) sufficient for identifying problems





- tests should be realistic and represent actual use
- lab conditions have advantages:
 - \checkmark less time consuming
 - \checkmark less interruptions
 - ✓ no difference in number of user interface problems identified by testers







analysis of in-game user interactions obtained from data mining

- Are the users showing the expected sequences of behavior?
- Are there any features that are being over- or underused?



- formative: inform future development
- primarily concerned with usability (UI design)
- last round of testing before app released for general use



observation



survey

interview



lab conditions

 (testers not
 required to go
 campus facilities
 to access AR
 content)







observation

• enjoyment and engagement: comments, smiles, laughter, positive body language

 lack of enjoyment and frustration: sighs, looking around the room

• user behaviour: path through UI



• 3, 5-point Likert scales: learning, usability, fun



1 (strongly disagree), 2 (disagree), 3 (neither), 4 (agree), 5 (strongly agree)

survey

This app is good for learning about campus. This app is easy to use. This app is fun to use.



• 1, 5-point Likert scale: app rating



1 (very bad), 2 (bad), 3 (neither), 4 (good), 5 (very good)

survey

Please rate this app out of five.





<u>Purpose (1)</u> Do you think the app works well as a campus guide?

interview

Learning (7) Do you think that game progress is too easy or too difficult? Do you think that game progress is too slow or too quick? Do you think that the game provides enough feedback? Do you think that the game encourages the player to think about how to use campus services? Do you think that the game experience is relevant to real life? Do you think that the game is an efficient way of learning about campus services? Do you think that the game is an engaging way of learning about campus services?



• 19 questions: purpose, learning, usability, fun, general



<u>Usability (4)</u>

Were there any moments when the app was difficult to use? Were there any moments when navigating through the app was unintuitive? Were there any moments when the text was difficult to read? Do you think that the app offers enough support on how to use it? Fun (2)

What parts of the app were the most fun? What parts of the app were the least fun?







General (5)

What is a good point of this app? What is a bad point of this app? Is there anything about the app that you think should be changed? Would you use this app again? Do you have any other opinions on the app?



















App changes

- UI buttons
- English font
- fully bilingual
- 'my scores' page





App changes

Recruitment Etiquette Seminar

I've got a job interview but I'm worried that I'll get really nervous and make a bad impression.

Receive free instruction from a professional model on grooming and how to

stand, walk, and sit at a job interview.

- UI buttons
- English font
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App changes

- UI buttons
- English font
- fully bilingual
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References

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