

WAKITA POC Sample Review Report

Executive Summary

Overall participants rated Wakita POC2 satisfaction as 5.5 out of 7 satisfied. Most participants struggled with where to plug in the device. However, looking back participants consider the setup process **simple and straightforward**. Most participants either missed the idle screen instructions or did not understand they were supposed to press Windows + K on their keyboard. Users see themselves using Wakita in productivity scenarios as well as entertainment scenarios. However the scenarios changes their feature priority, expectations and tolerance for latency and stability.

Methodologies

10 participants were invited to install and experience Wakita POC2. 30% of the participants have used competing casting device, 30% have used Microsoft Wireless Display Adapter Gen 1, 30% have not had any experience with wireless casting.

Participants were invited to share their personal electronics usage habits, their digital environment setup at home and their casting experience if they have any.

Participants were then tasked with installing the device and connecting the device. After the setup participants were invited to experience the media streaming quality by watching the same video in 4K and 1080p. Participants were then invited to engage mouse-operation heavy activities, such as drawing circles and making presentation.

Environment and Equipment

Study was conducted in a living room – like environment. Participants casted a Surface Pro 6 to a LeTV about 2.5m away from them. Participants were instructed to use “Extend Mode” when casting / projecting. TV has been switched to HDMI source but not necessarily the HDMI port which the device is plugged in. Participants were also provided a mouse (Liaoning) with a fixed DPI. Participants all casted under P2P mode.

Pain points and Feedback

Device Installation

- User wants to plug both HDMI and USB cable into their laptop.
- User wants to plug HDMI cable into TV and USB cable into their laptop, even after they have been briefed that this is a wireless casting device.
- User expects a plug head at the USB end plug into a wall socket; or user does not realize that TV has USB port; user does not realize that TV USB port provides power.

Idle Screen Instructions

Users felt overwhelmed by the information. Users felt the font size is too small to be viewed from a normal living room TV-to-couch distance.

- Some user misses the idle screen.
- Idle screen text too small.

- Idle screen is populated with too much information.
- Password on idle screen confuses user.
- User only notices the device name
- None of the user noticed the prompt for WDA app download.

Setup Feedback

Although users do struggle with installing the device, when asked to evaluate the process, users consider the process to be “simple”, “straightforward” and attribute their confusion to inexperience. Users also commented on how the device does not feel very “wireless”, expressing their desire to detach the cable¹.

- User plugs both HDMI and USB into their laptop
- User plugs HDMI into TV and attempts to plug USB into laptop
- User wants to plug USB into a power head that goes into a wall socket.
- User expects the setup process to be similar to Bluetooth device.
 - o User expects to find device under settings -> Bluetooth.
 - o After they install Wakita, they go back to their seats, search for device on their laptop and misses the idle screen instruction.
- Idle screen text is too small to see at the normal TV-to-couch distance. Users feels overwhelmed by information on the idle screen.

Household Digital Environment

In most households, wifi routers are co-located with TVs

This means if they choose to setup infracast, their connection speed and stability will increase. The distance between the wifi router and the casting device and display screen affects infracast quality. The shorter the distance, the better the performance.

- Major TV models:
 - o Sony
 - o LG
 - o Skyworth
 - o Xiaomi
 - o Philip
 - o Panasonic
 - o Sharp

TV Usage Scenarios and Frequency

TV usage ranges from 2h daily for households with children, to monthly usage for young working professional households. Participants generally describes their home entertainment, watching movie, streaming media or sharing photos, involves TV usage.

¹ Users want to detach the cable for a wireless look. Some also argued that detachable cable will give them the flexibility of adjusting cable length.

Potential Use Case for Wakita

Most users interviewed anticipate they will use Wakita for entertainment.

- Entertainment (Media Streaming): stream movies, on-line courses.
- Personal productivity: wireless connection to second display screen for viewing²
- Mobile casting: people were excited about the perspective to cast from their phones, as some households do not have laptops at home.

Price Point

Participants' expectation of Wakita's price point intersects with program target, clustering around \$99. When informed of Wakita's price (\$69.99), most participants reacted with "as expected" or "reasonable", few expressed immediate purchase interest at this price point. Depending on how the product is positioned, customers will compare with the competitors in that category.

- One participant used such language when asked about price estimation: "I expect it will be the same as Apple TV but I expect it will be cheaper"³

Hands On Experience

Media Streaming

Participants were invited to view two videos of the same content one at 4K resolution and another at 1080 resolution.

- All except for two participants noticed the difference between the two videos and considered 1080 resolution video streaming experience to be smoother.
- 3 participants cannot accept the streaming quality of 4K video.

Mouse Latency

All participants noticed mouse latency. Productivity users could not accept the mouse latency.

Miscellaneous

Research and interviews have reflected that most smart TV in the market today have wireless projection built in, mostly for phones and mostly requires installing a software.

Only ONE participant noticed the reset button on the device, but this participant thought it was a power button.

Non-technical participants worry that the casting quality is related to internet speed.

Participants wondered if the volume would come through the TV.

² Note: Current POC sample mouse lagging is considered unacceptable for productivity work that involves heavy mouse operation.

³ Participant assumed the product will be cheaper because the portable size of Wakita created a feeling that it is not as powerful as the Apple TV.

Some participants do not know how to change projection modes and suggest that we include changing projection mode in the Quick Start Guide.

One participant worried that plugging USB into a TV that only has one USB port won't allow for other portable storage devices to be plugged in⁴. Therefore, this participant preferred a power source that connects to a wall socket or an outlet.

⁴ i.e. if Wakita is plugged, then they won't be able to plug in a USB stick with movies on it, if the TV only has one USB port.