

COMPUTER HEADSETS FOR ONLINE LANGUAGE INSTRUCTION

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FACULTY STORY



WHY USE A HEADSET?

Clear communication is a vital part of teaching and learning a language!

Using a headset, rather than your device's built-in microphone/speakers, **improves intelligibility** for you and for your listeners in two primary ways:

- **By moving the microphone closer to your mouth**
- **By moving the playback speakers onto your ears**

WHEN DON'T I NEED A HEADSET?

You may not need a headset if:

- You are working in a consistently quiet room
- Your computer's built-in audio devices are high quality
- You can stay a consistent distance from your built-in microphone



WHAT ARE THE MOST IMPORTANT FACTORS TO CONSIDER WHEN SELECTING A HEADSET?

COMFORT

If possible, try on several models before making your purchase.

COMPATIBILITY

What connectivity options does your device offer (ports, jacks, wireless)?

CLARITY

Ensure that both you and your listeners can hear subtle details.

COST

Let CeLT know if you are having trouble finding a model that fits both your needs and budget.

CeLT has purchased a wide selection of headsets from our list of recommended models, so that instructors can come try them on and see how they interface with their devices.

HEADSET SPECIFICS/TERMINOLOGY

- **Monaural and binaural:** covering one or both ears
- **Frequency response:** the range of audio frequencies a headset can transmit
- **UC/MS:** designations which refer to pre-set features (Unified Communications or Microsoft Certified)

HEADSET FEATURES

- **Wired and wireless:** wireless technology includes traditional DECT wireless and Bluetooth
- **Control module:** easy-access controls for volume and mute, usually either “in-line” or “on-ear”
- **Audio Processing/EQ:** Nearly all offer some embedded equalization or audio optimization to better transmit the vital vocal frequencies
- **Noise cancellation** (described in more detail on the following slides)

NOISE CANCELLATION

- **Noise-canceling headphones:** Noise-canceling headphones remove noise in the background environment of the listener. Headphones can “cancel” noise in two ways:
 - **Active cancellation** uses additional small microphones to “listen” to the noise in your environment and emit waveforms that will cancel out the noise (requires batteries or power via USB)
 - **Passive cancellation** relies on acoustic isolation provided by foam or other padding in the headphones

NOISE CANCELLATION

- **Noise-canceling microphone:** Noise-canceling microphones remove noise from the environment of the speech producer.
 - **Active cancellation** uses additional microphones to “listen” to the noise and will “subtract” those sounds from the signal your audience will hear
 - **Passive cancellation** utilizes directional microphones, which pick up sounds coming from a specific direction (in this case, the direction of your mouth).

ZOOM-SPECIFIC CONSIDERATIONS

Zoom includes several **built-in audio processing** options (to suppress background noise, etc.), which generally serve to subtly improve the overall audio quality but can be manually disabled.

Sometimes you might experience **temporary audio issues** due to transient problems with internet bandwidth, WiFi signal strength, or other hindrances. It may be necessary to **turn off video and go audio-only** for the remainder of your Zoom session!

A	B	C	D	E	F	G	H
Model	H111	H540	H570e	H820e	Zone	PC 8.2 Chat	Impact SC 60
Brand	Logitech	Logitech	Logitech	Logitech	Logitech	Sennheiser/EPOS	Sennheiser/EPOS
MSRP	\$14.99	\$49.44	\$54.99	\$229.99	\$229.00	\$69.90	\$60.00
Connectivity	3.5mm	USB-A	USB-A	USB-A	USB-A or USB-C and Bluetooth	USB-A	USB-A
Weight	2.61 oz	4.23 oz	3.90 oz	4.50 oz	6.38 oz	4.60 oz	3.70 oz
Warranty	2-year	2-year	2-year	2-year	2-year	2-year	2-year
Controls	None	On-ear	In-line	On-ear	On-ear	In-line	In-line
Mic Freq Response	100 Hz –16kHz	100Hz-16kHz	100Hz-18kHz	100Hz-7kHz	85Hz-20kHz	100Hz-10kHz	150Hz-6.8kHz
Headphones Freq Response	20Hz - 20kHz	20Hz-20kHz	31.5Hz-20kHz	150Hz-7kHz	30Hz-13kHz	20Hz-20kHz	60Hz-16kHz
Mac Compatibility	Yes	Yes (may need adapter to USB-C)	Yes (may need adapter to USB-C)	Yes (may need adapter to USB-C)	Yes (may need optional USB-C adapter)	Yes (may need adapter to USB-C)	Yes (may need adapter to USB-C)
Mic Side	Either	Right	Either	Either	Either	Either	Either
Noise Cancelling Headphones	No	No	Passive	Passive	Active (can be disabled)	No	No
Noise Cancelling Mic	Passive	Passive	Passive	Active	Active	Passive	Passive
Flexible Boom	Yes	Somewhat	Yes	Yes	Yes	Somewhat	Yes
Cable Length	7.71 ft	5.90 ft	7 ft	N/A	N/A	5.58 ft	7 ft
Ear Cushion Type	Foam	Leatherette	Leatherette	Leatherette	Leatherette	Foam	Foam
Padded Headband	No	Yes	Yes	Yes	Yes	No	No
Headphone type	On-ear	On-ear	On-ear	On-ear	On-ear	On-ear	On-ear
Also available in monaural style?	No	No	Yes	Yes	No	No	Yes (model Impact SC 30)
Embedded EQ/audio processing	No	Yes	Yes	Yes	Yes, controllable with "Logi Tune" app for customization	No	Yes
Wired/Wireless	Wired	Wired	Wired	Wireless (300 ft range)	Wireless (Bluetooth, 100 ft range)	Wired	Wired
Battery Life	N/A	N/A	N/A	10 hours	14 hours	N/A	N/A
Notes					Compatible with the "Logi Tune" app for smartphone and desktop, allowing custom EQ settings and more.		

CeLT has prepared a detailed list of headset tips and recommendations, accessible from the CLE Orientation page.

(<https://cle.indiana.edu/news-and-events/fall-orientation.html>)

Q&A



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