



# Goldsmiths

UNIVERSITY OF LONDON

in partnership with

 IRIS CLARITY

## The Impact of IRIS Clarity on Call Centre Efficiency

Clear Calls, Clear Results: A  
Goldsmiths Study on IRIS Clarity

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## INTRODUCTION

# The Revolution in Call Centre Efficiency with IRIS Clarity

In the dynamic landscape of customer service, clarity in communication is paramount. The smallest disturbances, often in the form of background noise, can lead to significant disruptions. These disruptions not only prolong call durations but also affect the overall quality of the interaction, leading to decreased customer satisfaction and increased agent stress.

Recognising the need to address this challenge, IRIS collaborated with Goldsmiths University to rigorously assess the impact of the IRIS Clarity noise suppression software. This portfolio presents the findings of this comprehensive research, revealing the transformative potential of noise suppression in optimising call centre efficiency.

## The Quest for Clearer Communication in Call Centres

- The Challenge
  - Background Noise & Disruptions
- The Solution
  - IRIS Clarity Software
- The Impact
  - Optimised Efficiency & Enhanced Agent Experience
- The Research
  - A Comprehensive Study by Goldsmiths University

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## THE PROBLEM

# The Stress Landscape in Call Centres: A Deep Dive into Agent Well-being Reveals Critical Insights

In today's digital era, call centres have evolved significantly, transitioning from traditional telephony systems to harnessing advanced technological tools such as artificial intelligence (AI)[Neto et al. (2019)]. Yet, as the technology landscape progresses, so do the challenges.

One of the most persistent challenges marring call centre efficiency is background noise. From bustling office environments to technical disruptions, agents and customers grapple with noise interferences. These disruptions not only elongate call durations but also lead to misunderstandings, repeated clarifications, and diminished customer experience.

**92% agents**

report medium to high stress levels, with major challenges stemming from job feedback, workload, and working conditions.

# The Menace of Noise: Quantifying the Impact in Call Centres

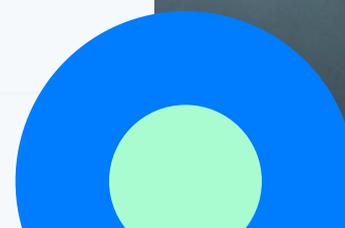
As call centres aim to provide stellar customer service, one often overlooked yet significant challenge they face is noise interference. This isn't just about the background chit-chat or the hum of machinery; it's about an environment that consistently surpasses acceptable noise levels, affecting both call quality and agent well-being.

## Decibels Tell a Tale

Recent studies have shone a spotlight on this pervasive issue. One notable study revealed that the average noise level in call centres was an alarming 68 dB [Soezen 2009]. To offer some context, this is almost as loud as a typical washing machine, which operates at around 70 dB.

**Imagine trying to communicate effectively while standing next to a running washing machine!**

This noise level doesn't just challenge clear communication; it exceeds the maximum acceptable background noise level by a significant 18 dB, potentially affecting agent well-being and long-term hearing.



## SECTION 01

# Research Methodology

## Purpose of the Research

This research aimed to evaluate the effectiveness of IRIS Clarity in enhancing call clarity, reducing call durations, and subsequently improving agent well-being and customer satisfaction.

## Simulation Setup at Goldsmiths University

A controlled simulation was established in the lab facilities of Goldsmiths University. The primary objective was to assess the audio quality enhancements offered by IRIS Clarity. For a robust and objective analysis, specific audio quality metrics, including PESQ (Perceptual Evaluation of Speech Quality) and MOS (Mean Opinion Score), were employed.

### Noise Creation

Simulated typical call centre noise; levels confirmed using a sound meter.

### Scripts

Participants were provided with standardised scripts to guide interactions.

### Equipment

Utilised Jabra Evolve2 65 headsets, preferred in professional call centres.



*Simulated Environment*



*Noisy Room reading*



*Quiet Room reading*

# Data Collection from Greenwich Council Service Centre

Beyond the controlled environment of the lab simulation, which primarily focused on audio quality metrics like PESQ and MOS, it was essential to dive deeper into other operational metrics in a genuine call centre setting. This led to the study at the Greenwich Council Service Centre.

- **Scope of the Study**

Unlike the lab simulation, the Greenwich study aimed to analyse more comprehensive call centre metrics, capturing the broader impact of noise and its suppression.

- **Data Extraction**

A total of 50 call recordings were meticulously analysed.

- **Metrics Analysed**

The study delved into Average Handling Time (AHT), repetitions, and specific markers indicating communication disruptions.

- **Surveys**

Questionnaires were disseminated to agents, focusing on their experiences with background noise, its impact on their work, and the changes post noise suppression implementation.

- **Interviews**

Individual interviews provided a qualitative perspective on agents' experiences, challenges faced, and the perceived improvements after the deployment of IRIS Clarity.

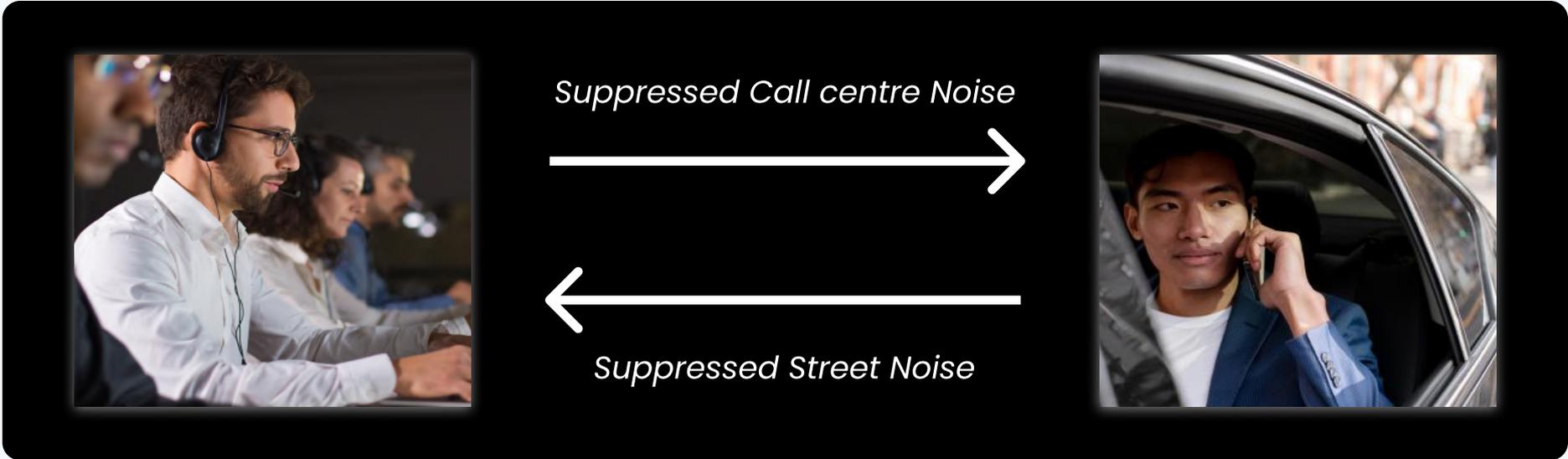
- **Metrics Analysed**

The study delved into Average Handling Time (AHT), repetitions, and specific markers indicating communication disruptions.

- **Equipment Used**

For their calls, most agents used professional-grade headsets, mainly the Sennheiser EPOS and Jabra Pro 930 MS.

At the core of IRIS Clarity's cutting-edge solution is its unparalleled voice isolation technology. By seamlessly eliminating noise from both ends of a call, it ensures a crystal-clear communication experience, irrespective of the environment.



Above: Noise comes from both calling sides. IRIS Clarity filters it out for both callers

## User Persona



**"Since starting to use 'IRIS Clarity,' I can hear that it almost feels like it's just me and the customer. It really helps."**

<b>KEY RESPONSIBILITIES:</b>		<b>PREFERENCES</b>	
<ul style="list-style-type: none"> <li>• Answering approximately 50 calls daily.</li> <li>• Handling diverse services: housing, school admissions, electoral services.</li> <li>• Logging into various systems daily: bio system, housing system, etc.</li> </ul>		<ul style="list-style-type: none"> <li>• Prefers a quiet environment for effective communication.</li> <li>• Appreciates tools that enhance call clarity and reduce background noise.</li> </ul>	
<b>TOOLS</b>	<b>KEY CHALLENGES</b>	<b>MOTIVATIONS</b>	
<ul style="list-style-type: none"> <li>• Call handling systems.</li> <li>• "IRIS Clarity" for improved call clarity.</li> </ul>	<ul style="list-style-type: none"> <li>• Dealing with noise interference in approximately 22% of calls.</li> <li>• Misunderstandings due to noise, leading to potential service errors.</li> <li>• Ensuring clarity, especially when dealing with elderly callers.</li> </ul>	<ul style="list-style-type: none"> <li>• Providing accurate and efficient service to callers.</li> <li>• Reducing misunderstandings and ensuring clarity in communication.</li> <li>• Keeping stress levels minimal while handling challenging calls.</li> </ul>	

# Key findings

## Average Handling Time

- Before Noise Suppression: 322.2 seconds  
After Noise Suppression: 198.8 seconds
- This translates to a reduction of approximately 38.2% in AHT, emphasising the software's efficiency in and reducing the propensity for repetitions or clarifications.

## PESQ and MOS

- The PESQ scores improved from 2.512 (without noise suppression) to 3.67 (with noise suppression).
- The Mean Opinion Score (MOS) showed a slight increase from 3.101 to 3.78.

## Agent Stress and Efficiency

- Before IRIS Clarity's deployment, half of the agents cited high stress due to background noise.
- After its implementation, about 2/3 of agents noticed enhanced focus and concentration, indicating a potential stress reduction and increased efficiency.

## Repetitions and Clarifications

- The tool contributed to a 45.03% decrease in time wasted due to repetitions, indicating an evident improvement in call clarity.
- Repetitions during calls were reduced by 35.29% post the implementation of IRIS Clarity.

## SECTION 03

# Clarity in Action: Agent Feedback Analysis

Call centres are bustling hubs of activity. Here, every interaction matters and every second counts. For agents, the challenges are multifaceted, from managing demanding customers to grappling with technical disruptions. Amid this, the role of clear communication is paramount.



## Noise Struggles: Agents' Feedback Before Noise Suppression

Before the introduction of IRIS Clarity's noise suppression capabilities, call centre agents at the Greenwich Council Service Centre often grappled with the challenges posed by background noise. To gauge the magnitude of these challenges and understand agents' experiences, a Pre-Implementation Survey was disseminated.

### Severity of Noise Impact on Customer Experience:

84.8% of agents believed that background noise has a pronounced or significant effect on the customer experience.

### Hindrance in Professional Duties Due to Noise:

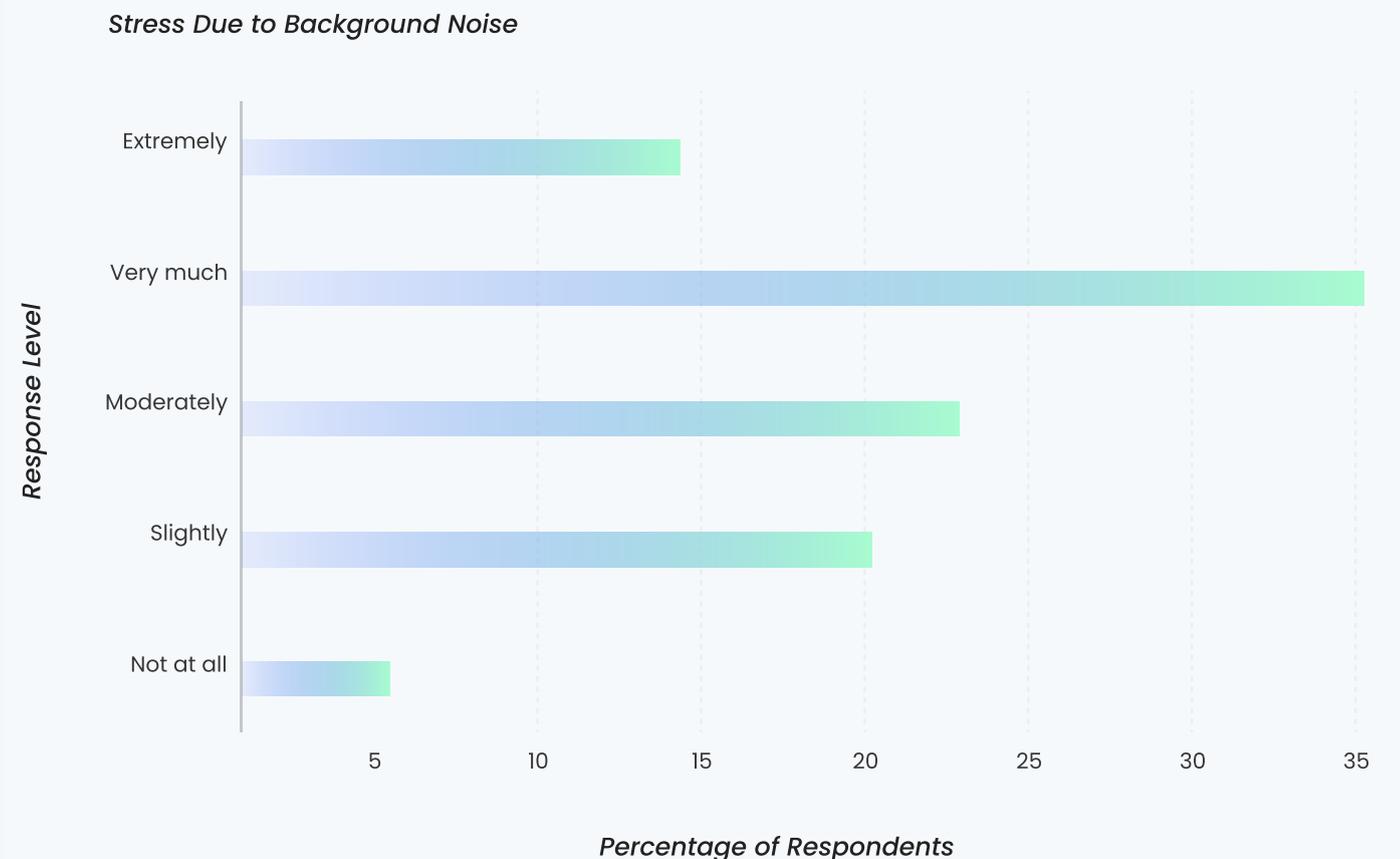
75.8% of agents felt that background noise is a notable hindrance in their day-to-day interactions with customers.

### Noise Impact from Customer's Side

61.77% of agents opined that noise from the customer's side often or always affected the customer experience.

## Textual Feedback

- Frequent expressions of dissatisfaction from customers due to having to repeat information.
- Noise interference often led to increased call durations.



## Noise Alleviation: Agents' Feedback After Implementing Noise Suppression

After the integration of IRIS Clarity, a subsequent survey was conducted to gauge the agents' experiences with the noise suppression technology.

### Effectiveness of Clarity

1. Over 60% of the agents surveyed indicated that the use of IRIS Clarity positively impacted their job by effectively reducing background noise during calls.
2. Nearly 70% of respondents reported an improvement in their focus and concentration during conversations, attributing this to the noise suppression capabilities of IRIS Clarity.
3. Approximately 77% of agents stated that IRIS Clarity enhanced their customer interactions by reducing the background noise coming from the customer's end.

### Audio Quality Feedback

Agents found IRIS Clarity to be effective in controlling background noise, especially when the callers were on speaker or situated far from the microphone. This led to a more focused and clearer audio experience, with no complaints from callers regarding background noises



## CONCLUSION

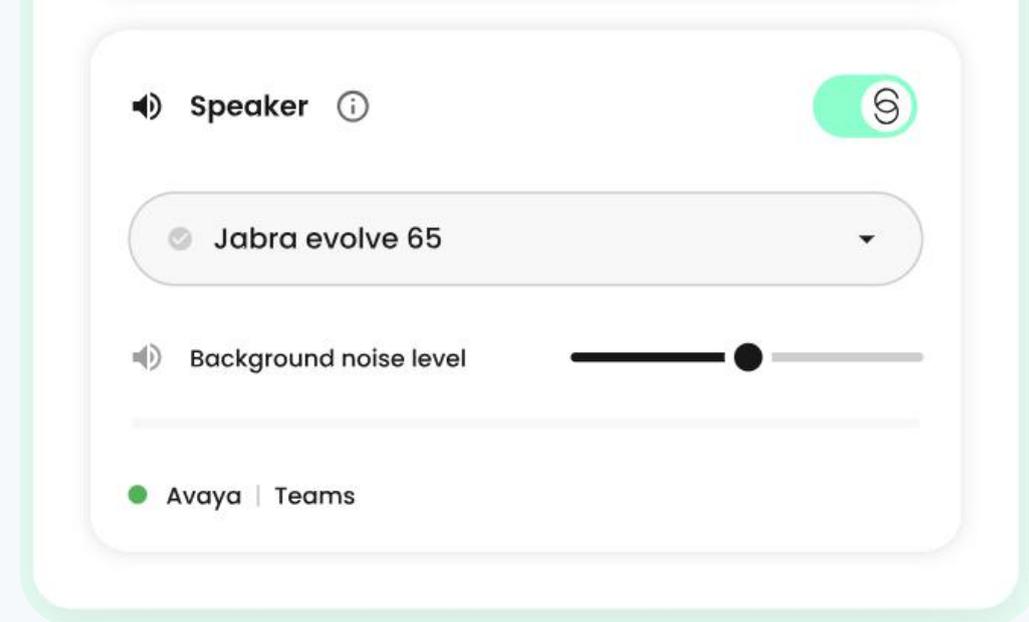
# IRIS Clarity's impact on Contact Centre

## 38% Decrease in AHT from Repetitions

This notable decrease in Average Handling Time due to reduced repetitions underscores the efficiency of IRIS Clarity. Agents can now swiftly address customer issues without the need for repeated clarifications, leading to heightened operational productivity and enhanced customer contentment.

## 45.03% Decrease in Time Wasted Due to Repetitions

Enhanced call clarity means fewer clarifications are needed, leading to more efficient and streamlined conversations with customers.



## Significant Reduction in Agent Stress

Before IRIS Clarity: 50% of agents cited high stress due to background noise. After IRIS Clarity: About 2/3 of agents reported enhanced focus and concentration, suggesting a more comfortable and less stressful work environment.

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