

PELTOR™

The Sound Solution



Increase Worker Productivity



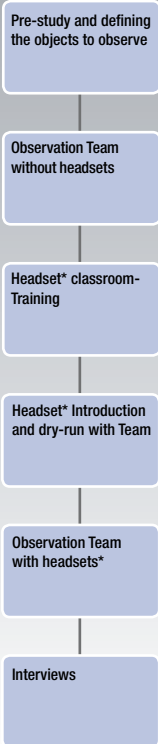
Researchers in the Civil Engineering program at Lund University in Sweden have shown that the use of 3M™ PELTOR™ WS™ LiteCom Headsets helped improve the productivity of a work unit by 380 minutes per week, increasing the percentage of direct work time from 71% to over 86%.



Methodology

This study is based on observations on a construction project. The project was chosen because of its repetitive and homogenous activities, which makes it suitable for comparing weeks over time. The study included two observations during separate weeks.

The study was executed according to the following plan:



* 3M™ PELTOR™ WS™ LiteCom Headset

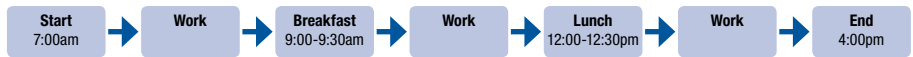
Authors/Source:

This study was made by Victoria Joäng and Ajdin Sadiković, Lund University Faculty of Engineering (LTH) in Sweden

3M™ PELTOR™ Communication Headsets helped increase worker productivity

The team included four officers, three operators, and six workers performing earth excavating, laying pipes, tubing, tube welding, and refill. First the team was performing their tasks as usual and the second time the team was wearing 3M™ PELTOR™ WS™ LiteCom Headsets.

A typical work day for the team members:



The observations were made on the operators and workers and their downtime on the construction site. Any activities that directly adds value to the project is defined as direct work, this is when the workers perform the actual earth excavating, laying pipes, tubing, tube welding, and refill. The downtime is defined as single measurements for one minute or more where no direct work is performed. Downtime up to one hour is defined as time for additional work, such as walking between places at the site, shorter breaks, reading drawings, looking for material or equipment, and talking to co-workers to solve problems. Any downtime that exceeds one hour is defined as stop time.

Results

Table 1 The observed time for direct work, downtime, and stop time in minutes during observation 1 and 2

| | Activity (min) | Mon | Tue | Wed | Thu | Fri | Total (Min) |
|---|--------------------|-----|-----|-----|-----|-----|-------------|
| Observation 1 | Direct work | 345 | 375 | 235 | 406 | 339 | 1700 |
| | Downtime | 135 | 105 | 135 | 74 | 141 | 590 |
| | Stoptime | 0 | 0 | 110 | 0 | 0 | 110 |
| Observation 2 With 3M™ PELTOR™ WS™ LiteCom Headsets | Direct work | 424 | 425 | 444 | 412 | 375 | 2080 |
| | Downtime | 56 | 55 | 36 | 68 | 105 | 320 |
| | Stoptime | 0 | 0 | 0 | 0 | 0 | 0 |

The results of the research study shows that the downtime during observation 1 was 590 minutes, and 320 minutes during observation 2. The direct work was 1700 minutes in observation 1 in comparison to 2080 minutes in observation 2.

Conclusion

The conclusion of this research study is that 3M™ PELTOR™ WS™ LiteCom Headsets helped improve the productivity of a work unit by 380 minutes per week, increasing the percentage of direct work time from 71% to over 86%. For a medium-duration project of 26 weeks that equates to almost a full work month of working time if the time gained is used efficiently. The 3M™ PELTOR™ Communication Headsets help solve the two critical problems of noisy environments; providing hearing protection and enabling effective communication.

3M™ PELTOR™ WS™ LiteCom Headsets have a built in two-way radio for cable free short-range communication with other headsets within the 3M™ PELTOR™ LiteCom Series and portable two-way radios programmed on the same frequency. Microphones with level dependent function for ambient listening allow users to hear ambient noises, such as warning signals, and have face-to-face conversations. The headsets also have the ability to connect to other external equipment like cell phones or portable two-way radios (regardless of frequency) via **Bluetooth®** Wireless Technology or via an external audio input. The noise cancelling speech microphone with VOX functionality enables you to communicate hands free in noisy environments.

As this research study has shown, improving employee communication and collaboration can have a direct effect on productivity, which improves your bottom line. Welcome to the next generation of 3M™ PELTOR™ Communications Solutions.



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