Spring 2013

Studio Acoustics: A Study on Clemson University's Design Studio Environment

Katrina Fumagali
Elise Little

Follow this and additional works at: http://tigerprints.clemson.edu/grads_symposium

Recommended Citation
http://tigerprints.clemson.edu/grads_symposium/2

This Poster is brought to you for free and open access by the Research and Innovation Month at TigerPrints. It has been accepted for inclusion in Graduate Research and Discovery Symposium (GRADS) by an authorized administrator of TigerPrints. For more information, please contact awesole@clemson.edu.
A Study on Clemson University's Design Studio Environment

**A C O U S T I C S**

Do the Acoustics in Different Studio Environments Affect a Student's Performance?

**RESULTS**

STUDIO READINGS vs BENCHMARKS

Benchmarks

PERCEPTION vs DECIBEL READING

Decibel Readings

Loudest

Lee II | Mezzanine

Very Quiet

Survey

LE

Somewhat

**SURVEY**

How would you rate the noise level in your studio area?

- Very Loud
- Somewhat Loud
- Somewhat Quiet
- Very Quiet

1. When do you typically work in studio? (mark all that apply)
   - Morning (9am-11am)
   - Afternoon (1pm-3pm)
   - Evening (5pm-7pm)

**METHODS**

This study compares student perceptions of noise with acoustical benchmarks and site-specific decibel readings. Decibel readings were conducted on Monday, Wednesday, and Friday for one week at the two studio spaces. The times were between 9-10am, 2-3pm and 7-8pm. In addition, a survey was distributed to the various disciplines in the Lee buildings. Responses were received from seventy-nine students.

**CONCLUSIONS**

Based on the testing and analysis from the acoustical readings, different design studio environments do impact a student's performance. In this particular study, it is understood that these 2 studios vary greatly in occupancy and community regulations. Both studios also differ in size, shape and materiality, which affects how sound is reflected throughout the rooms.

**RESOURCES**


**ACKNOWLEDGMENTS**

We would like to thank Dina Battisto for all her guidance throughout this process. In addition, we thank Justin Miller for taking an interest in our research topic and for being our decibel reader guru.

**PERCEPTION OF NOISE BY ZONE**

1. Lee II | Ground Floor
2. Lee II | Second Floor
3. Lee III | Mezzanine
4. Lee II | Mezzanine
5. Lee III | Ground Floor

**ACTIVITY PERFORMANCE**

**STUDIO READINGS vs BENCHMARKS**

**SURVEY**

**BENCHMARKS**

**DECIBEL READINGS**

**ANALYSIS**