Lighting levels in all rooms reflect trends towards “bright”, and may be compared to the results of daylighting studies found in the study by Sarah Chapin and Jaime Shen: relatively variable lighting levels in all classrooms were found, and opinions reflect those levels. Northern and southern orientation seems to be an important factor, especially where glare is concerned, as direct light on desk services was observed in 185 and 285. Perception of daylighting, electric lighting and glare levels was highly dependent on the interaction of all three within each room; these are difficult variables to isolate due to their subjective perception.

Conclusions

Gathering opinions on human comfort is often hard to evaluate; variables involved are very difficult to isolate. In the case of this survey, implementation occurred both at the start and end of classes, and this issue of timing may have had an impact on the way in which the participants answered the questionnaire. However, the second set of questions asked respondents questions regarding lighting, glare, and their perceptions of these aspects. Correlation of information for comfort levels and their perceptions was found to be strong in terms of comfort levels and their perceptions of these aspects. The survey will be further improved by asking respondents to write their seat number in as much detail as possible,

While the analysis of information gathered from this study conducted on those issues approached in other case studies, namely daylighting (Chapin and Shen, 2003) and thermal comfort (McKee, 2003), discussion of other environmental quality parameters quoted in the survey would be extremely useful. The role of gender in perception, as well as the number of a week respondents take classes in Lillis Business Complex would also be interesting to follow up on.

It is hoped that further improvement of the survey instrument based on these lessons learned can be combined with case studies conducted in the summer months at Lillis Business Complex, where there are indications of comfort issues, especially in terms of thermal comfort, for further study.

Because the Lillis Business Complex includes innovative and energy-efficient features in building design including daylighting, natural ventilation, lighting, temperature and ventilation controls, the complex serves as a rich testing ground for perceptions of these innovative features and their effectiveness in achieving human comfort. A questionnaire on perceptions of light, temperature and air quality can illuminate the effectiveness of the building design and to use energy-saving passive systems coupled with technology to support a sustainable, healthy and comfortable learning environment. Quantitative information on opinions of environmental quality might further assist in the evaluation of the building design, and qualitative information on perceptions of the building can provide insights into the design process and the building’s performance in the real world.

References

All images courtesy of Corvallis College of Business, University of Oregon http://bld.oregon.edu/complex

a survey of opinions on environmental quality

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