Promoting Workplace Health & Wellness through an Open Source Analytics PROWELL©

Young Lee, PH.D., LEED AP, WELL AP, FITWEL, CIDQ, Exec. Director, Innovative Workplace Institute
Michelle Osburn, LEED AP, CIDQ, Senior Consultant, Perkins+Will
Jessica Wolkoff, LEED AP, Senior Consultant, Perkins+Will
Thursday, March 22, 2018
Workplace Wellbeing Analytics: PROWELL ©

- Open Source Online Workspace Analytics
- Funded by the American Society of Interior Designers Foundation
- A collective effort with industry leaders
- Workplace performance metrics in health & wellbeing beyond the conventional metrics of cost per SF
- Key performance indicators (KPIs) of the physical workspaces supporting the organizational performance in innovation and innovation strategies
Focus Group

- Barbara Marini, Former ASID National President, President of Marini Design
- Cinda Noffke, Manager, Global Real Estate, Whirlpool
- Cynthia Milota, Workplace Strategist, Discover Card
- Dana Schneider, Managing Director, JLL
- Derek Clements-Croome, Professor, University of Reading, UK
- Giselle Sebag, Director of Programs, Center for Active Design
- Isilay Civan, Senior VP, Global Design Head, Large Financial Institution
- James Brewer, Senior Workplace Consultant, Steelcase
- James Rice, Senior Vice President, JLL
- James Stawniczy, Senior Consultant, Sustainable Design Leader, HOK
- Janice Barnes, Principal and Global Discipline Leader, Perkins+Will
- Joseph T. Connell, Design Principal, Perkins+Will
- Katie Sunberg, Interior Designer, Marxmoda
- Kelly Lea, Designer, Carson Design
- Mara Baum, Sustainable Design Leader, Health+Wellness, HOK
- Robert Nading, AVP-Purchasing/Facilities, Campus Federal Credit Union
- Whitney Gray, Senior VP, Business Development, Delos
Framework of PROWELL©

• Wellbeing Definition (by the US CDC)
  • Wellbeing means: Judging life positively; Feeling good
  • Wellbeing is associated with:
    • Self-perceived health
    • Longevity
    • Healthy behaviors
    • Mental and physical illness
    • Social connectedness
    • Productivity
    • Factors in the physical and social environment
  • Three main domains of wellbeing: physical, mental, and social Domains.
  • Aspects of wellbeing examined in various disciplines:
    • Physical wellbeing
    • Psychological wellbeing
    • Social wellbeing
    • Emotional wellbeing
    • Economic wellbeing
    • Development and activity
    • Life satisfaction
    • Engaging activities and work

• Health Definition (WHO): Health is a state of complete physical, mental and social well-being.
Framework of PROWELL©

• 7 Dimensions of Workplace wellbeing
Measures of PROWELL© – 1. Physical Fitness

1. **Exterior active design**
   : to encourage physical activity and movement by publicly available outdoor amenities

2. **Active transportation**
   : to involve physical activities such as walking and bicycling for commuting and to discourage the use of single-occupancy vehicle (SOV)

3. **Interior active design**
   : to provide interior spaces to engage physical exercises and activities and offer interior space planning, designs, and furniture/equipment options to promote physical movement

4. **Policy & Benefits support**
   : to encourage and support physical fitness activities
Measures of PROWELL© – 2. Physical Comfort

1. **Furniture ergonomics**: to provide minimum clearances and ergonomic supports for employees to carry out critical job functions

2. **Auditory comfort**: to provide acoustically comfortable environments by preventing and controlling unwanted noises and activities that generate noises

3. **Visual comfort**: to provide proper lighting level and quality and circadian rhythm support

4. **Thermal comfort**: to provide thermally comfortable environment

5. **Olfactory comfort**: to provide odor-free and olfactory sense-enhancing spaces

6. **General**: to ensure a policy in place to support to provide a desirable level of physical comfort for various topics
Measures of PROWELL© – 3. Physical Nourishment

1. **Healthy foods & hydration**
   : to ensure healthy options available for foods, beverages, and snacks provided onsite

2. **Health – conscious eating habits & behaviors**
   : to encourage healthier food choices and behavioral changes

3. **Healthy food amenities**
   : to provide access to amenities for individual employees’ own foods onsite and local produce offsite

1. **Types of spaces**
   : to provide necessary types of spaces to enhance cognitive functions and mitigate cognitive overload

2. **Flexibility and flow of primary workspaces**
   : to provide flexible spaces and features supporting the flow of information necessary to perform critical job functions and cognitive functions

3. **Technology and equipotent accessibility**
   : to provide appropriate technologies and equipment accessible by employees for easy information capture and flow

4. **Acoustical privacy**
   : to ensure noise control in the open workspaces to support cognitive functions
Measures of PROWELL© – 5. Social Wellbeing

1. **Social connectivity**
   : to support social networks for enhance social trust and cohesiveness

Young Lee, 2017
Measures of PROWELL© – 6. Emotional Wellbeing

1. **Biophilic design**
   : to address human's innate desire for beauty and aesthetic inspirations

2. **Arts and design elements for human delight**
   : to address human's innate desire for beauty and aesthetic inspirations

3. **Personalization and control**
   : to support human's innate desire for an internal sense of control and efficiency

Young Lee, 2017
Measures of PROWELL© – 7. Environmental Wellbeing

1. **Indoor air quality**: to eliminate toxic chemicals, pollutants and irritants in the air
2. **Drinking water quality**: to eliminate toxic chemicals, pollutants and irritants in the water
3. **Chemical control**: to eliminate persistent bio-accumulative and toxic chemicals in the building and interior materials
4. **Cleanliness & maintenance**: to eliminate potential sources of collection of indoor pollutants and contamination
Automatic Analysis of PROWELL®

Overview

Workplace Wellbeing Performance

WP 61

Test 040316
Automatic Analysis of PROWELL©

Performance by Key Indicators

Total Score in Workplace Wellbeing Performance: 61.86

* The total score is calculated based on the points earned out of a total of 10 points available in each of the seven key performance indicators (KPIs) which is, then weighted based on the impact/significance of each KPI in achieving innovation in a knowledge workplace.

Summary

Workplace Wellbeing Performance of the Company

<table>
<thead>
<tr>
<th>Seven Dimensions of Workplace Wellbeing Scores</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF: Physical Fitness</td>
<td></td>
</tr>
<tr>
<td>PC: Physical Comfort</td>
<td></td>
</tr>
<tr>
<td>PN: Physical Nourishment</td>
<td></td>
</tr>
<tr>
<td>CW: Cognitive Wellbeing</td>
<td></td>
</tr>
<tr>
<td>SW: Social Wellbeing</td>
<td></td>
</tr>
<tr>
<td>EW: Emotional Wellbeing</td>
<td></td>
</tr>
<tr>
<td>EnW: Environmental Wellbeing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Workplace 1</th>
<th>7.34</th>
<th>11.92</th>
<th>3.24</th>
<th>14.93</th>
<th>9.93</th>
<th>4.85</th>
<th>9.65</th>
<th>61.86</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>12.47</td>
<td>25.27</td>
<td>7.29</td>
<td>20.83</td>
<td>9.93</td>
<td>10</td>
<td>14.22</td>
<td>100</td>
</tr>
</tbody>
</table>

* The total score is calculated based on the points earned out of a total of 10 points available in each of the seven key performance indicators (KPIs) which is, then weighted based on the impact/significance of each KPI in achieving innovation in a knowledge workplace.
Automatic Analysis of PROWELL©
Automatic Analysis of PROWELL®

Multiple Comparisons between Workplaces
Wellbeing within the Sustainability Framework

<table>
<thead>
<tr>
<th>LEED</th>
<th>WELL</th>
<th>FITWEL</th>
<th>PROWELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT INTEGRATIVE PROCESS Encouraging cross discipline collaboration</td>
<td>AIR</td>
<td>Location</td>
<td>Physical Fitness</td>
</tr>
<tr>
<td>WATER EFFICIENCY Smart use and reuse of water</td>
<td>WATER</td>
<td>Building Access</td>
<td>Physical Comfort</td>
</tr>
<tr>
<td>INDOOR ENVIRONMENT Indoor air quality &amp; access to natural light &amp; views</td>
<td>NOURISHMENT</td>
<td>Outdoor Spaces</td>
<td>Physical Nourishment</td>
</tr>
<tr>
<td>ENERGY &amp; ATMOSPHERE Energy Performance</td>
<td>LIGHT</td>
<td>Entrances &amp; Ground Floor</td>
<td>Cognitive Wellbeing</td>
</tr>
<tr>
<td>SUSTAINABLE SITES Minimising impact on ecosystems &amp; water resources</td>
<td>FITNESS</td>
<td>Stairwells</td>
<td>Social Wellbeing</td>
</tr>
<tr>
<td>INNOVATION</td>
<td>COMFORT</td>
<td>Indoor Environment</td>
<td>Emotional Wellbeing</td>
</tr>
<tr>
<td>REGIONAL PRIORITY Geographic environmental priorities</td>
<td>MIND</td>
<td>Workspaces</td>
<td>Environmental Wellbeing</td>
</tr>
</tbody>
</table>

- AIR
- WATER
- NOURISHMENT
- LIGHT
- FITNESS
- COMFORT
- MIND

- Location
- Building Access
- Outdoor Spaces
- Entrances & Ground Floor
- Stairwells
- Indoor Environment
- Workspaces
- Shared Spaces
- Water Supply
- Cafeterias & Prepared Food Retail
- Vending Machines & Snack Bars
- Emergency Procedure
Wellbeing within the Sustainability Framework

<table>
<thead>
<tr>
<th>Sustainability Principles</th>
<th>LEED</th>
<th>WELL</th>
<th>FITWEL</th>
<th>PROWELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Economy</td>
<td></td>
<td></td>
<td></td>
<td>●</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health/Wellbeing Principles</th>
<th>WELL</th>
<th>FITWEL</th>
<th>PROWELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Fitness</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Physical Comfort</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Physical Nourishment</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Environmental Wellbeing</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Cognitive Wellbeing</td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Emotional Wellbeing</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Social Wellbeing</td>
<td></td>
<td></td>
<td>●</td>
</tr>
</tbody>
</table>

Source: Triple bottom line & sustainability: the science of good business. https://www.youtube.com/watch?v=2f5m-jBf81Q
69
9,800 SF
Urban Location / Renovation
Free Address Seats

Fitwel Certified (2 stars)
Tracking LEED CI Gold
Tracking Material Petal Certification

Minneapolis, MN
A Global Workplace Community focused on increasing Workplace Innovation & Consciousness

Relocation from suburban location

12,000 SF

Urban

Fitwel Certified (2 stars)

Durham, NC
A Global Workplace Community focused on increasing Workplace Innovation & Consciousness

Urban Location

Landmark building

Tracking LEED CI Platinum
Pursuing Fitwel

Chicago, IL
A Global Workplace Community focused on increasing Workplace Innovation & Consciousness

Dallas, TX

188
40,000 SF
Urban Location / Former High School

Tracking Fitwel (3 stars)
Tracking LEED CI Platinum
Tracking WELL Platinum
Overall Scores

- Physical Fitness (PF)
- Physical Comfort (PC)
- Physical Nourishment (PN)
- Environmental Wellbeing (EnW)
- Emotional Wellbeing (EW)
- Social Wellbeing (SW)
- Cognitive Wellbeing (CW)

Scores:
- Chicago: 49.81
- Dallas: 65.72
- Durham: 41.10
- MPLS: 51.84
Physical Fitness

- Chicago / 6.76
- Dallas / 6.72
- Durham / 3.93
- MPLS / 7.34

Graph showing Physical Fitness across different categories:
- PF 1 Exterior Active Design
- PF 2 Active Transportation
- PF 3 Interior Active Design
- PF 4 Policy & Benefit Support

Key points:
- Chicago andDallas have the highest scores in some categories.
- Durham has the lowest scores.
- MPLS has a consistently high score across categories.
Physical Fitness
Physical Comfort
Physical Comfort

Durham

Minneapolis
Physical Nourishment

- **PN 1 Healthy Foods & Hydration**
  - Chicago: 1.75
  - Dallas: 1.60
  - Durham: 0.73
  - MPLS: 0.18

- **PN 2 Health-Conscious Eating Habits & Behaviors**
  - Chicago: 0.97
  - Dallas: 0.73
  - Durham: 0.18
  - MPLS: 0.73

- **PN 3 Healthy Food Amenities**
  - Chicago: 1.82
  - Dallas: 1.64
  - Durham: 1.46
  - MPLS: 1.09
Physical Nourishment

Dallas

Minneapolis
Social Wellbeing

- SW 1-1: Available Social Spaces
- SW 1-2: Visual Connectivity
- SW 1-3: Established Core Interaction Networks
- SW 1-4: Cross-Pollination Space Planning

Cities:
- Chicago
- Dallas
- Durham
- MPLS
Emotional Wellbeing

- EW 1 Biophilic Design
- EW 2 Art & Design Elements for Human Delight
- EW 3 Personalization & Control

Cities: Chicago, Dallas, Durham, MPLS
Emotional Wellbeing
Environmental Wellbeing

- EnW 1 Indoor Air Quality
- EnW 2 Drinking Water Quality
- EnW 3 Chemical Control
- EnW 4 Cleanliness & Maintenance

Cities: Chicago, Dallas, Durham, MPLS
Environmental Wellbeing

Minneapolis

Dallas
What does this mean for our P+W Offices?

- Identify “Day 2” design opportunities
- Review policy opportunities
- Learn from our office level strengths
- Prowell© experience to pass along to our clients
Thank you

Young.Lee@InnovativeWorkplaceInstitute.org
Michelle.Osburn@perkinswill.com
Jessica.Wolkoff@perkinswill.com