INTRODUCTION

Today’s work environments are experiencing a radical evolution, given the social distancing measures resulting from the pandemic. The complexity of the current workplace requires researchers and designers to examine the space of an organization’s success — employees, culture, and design teams engage in frequent communications through multiple media on a weekly and daily basis. The success of a project depends on the level of communication within the teams. This study will examine the interrelationship between homophily within the team structure, spatial distance in the workplace, and perceived communication networks formed on studio teams.

RESEARCH QUESTION

What is the workplace role in supporting team communications among architects, engineers, and interior designers in the era of decentralized workplaces?

SAMPLE

The location is a single office of national architecture, engineering, and interior design firm, with a regional office in the southeastern United States. Their office was established over 50 years ago and employs 250 in this office. The sample includes three studio teams: Interiors, Office, and Engineering, representing each project team’s architectural, engineering, mechanical, and interior design faculty. The participants included males and females with an age range between 20-60 years of age.

METHODOLOGY

This study will utilize several data-gathering instruments to triangulate the data and increase the validity of the findings. These include the organization’s internal documents, survey questionnaires, and focus group interviews (Glesne, 2008). The data will be collected in three phases: documentation of the workplace, communication network survey, and focus groups.

Part One: The documentation of the physical features and analysis of the human activity patterns (space syntax) will be used to explore the potential relationships between physical space and employees occurring within the workplace.

Part Two: The network survey intends to document the perceived communication networks (face-to-face, videoconferencing, phone, email, and instant messaging) occurring within the organization’s multidisciplinary design teams. This survey will also capture individual demographic information, gender, age, highest earned degree, assigned studio, and role (interim) and relationship communication media satisfaction scores (1=lowest to 5=highest).

Part Three: Focus groups intend to understand employee perceptions surrounding team encounters and communications that surfaced in the space documentation and network survey.

DISCUSSION

The study aims to understand the frequency and perceived quality of communication needed at an architectural and design firm through three phases.

With the increasing complexity of building design, teams (architecture, engineering, and interior design) are expected to collaborate more frequently with other disciplines. This collaboration occurs through a growing number of communication media, such as face-to-face conversations, phone calls, and emails. Various media theories attempt to explain how individuals choose among these media, based on the type and quantity of information being conveyed (Daft, Lengel and Trevino 1987; Dennis and Kinney 1998).

The capacity for teams to leverage and develop effective communications is crucial to the success of a project. Today’s work environments are characterized by a growing number of communication media, such as face-to-face conversations, phone calls, and emails. The use of emerging communications technology methods such as instant messaging (IM) and video conferencing is becoming more prevalent in the workplace. A study by the National Association of Home Builders (NAHB) found that 37% of home builders use video conferencing during construction. The use of these technologies is expected to increase as the prevalence of remote work continues to grow.

The purpose of this study is to understand the frequency and perceived quality of communications during a non-normative period (COVID-19).

PILOT STUDY 1: 2019

COMMUNICATION NETWORK

In the second quarter of 2019, a pilot study was launched. The study focused on individual designers’ ability to communicate with coworkers of similar backgrounds and identify those conditions that led to effective communication. The study involved an analysis of the communication patterns in a nontobacco studio team working for a national A/E firm located in the southeastern United States.

A survey questionnaire was then developed in Qualtrics to measure communication across three distinct mediums: face-to-face, phone, and email. The survey asked respondents to indicate how frequently they communicated with each studio team member over the past week, using a 5-point frequency scale (e.g., a: never, b: once a week, c: once a day, d: two to three times a week, e: once per day, multiple times per day).

The results show some evidence of homophily as a predictor of information exchange when controlling for the reporting structure within the studio team. Face-to-face communication was more likely when members were the same gender and had a shorter distance walking in contrast. Phone communication was more likely when the reporting channels. However, it was not a predictor of email communication, as indicated by the dataset. The only team member contribution was significantly related to any network topology.

PILOT STUDY 2: 2020

A subsequent study took place during May 2020 (COVID-19), while all individuals worked from home:

• Same organization
• Different location
• Larger sample population
• Different instant messenger

Maintaining strong communication channels is vital during times of normal operations but becomes even more indispensable during times of crises, like COVID-19, that mandate remote working conditions. This study aims to understand the perceived quality and frequency of communication needed by functioning and directing during non-normative periods that force remote workplaces using multidisciplinary teams at an architectural and design firm.

PILOT STUDY LIMITATIONS

While examining homophily in the sampled studio team provided some insight into how designers communicate, there are several limitations to acknowledge which support future research:

• Additional locations, participants, and team structures can be studied
• During a different phase/period of a project or task type
• Explore communication needs

REFERENCES