Step Up: Using Social prompts to reduce lift usage in a university context

A thesis

submitted in fulfillment

of the requirements for the degree

of

Master of Health, Sport, and Human Performance

at

The University of Waikato

by

Heena Talwar

THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Year 2024

Abstract

This study, aimed to evaluate the effectiveness of a pro-social message, incorporating the concept of "watching eyes," to encourage stair use over lift usage in a university setting. Physical inactivity is a significant global health issue, and promoting simple physical activities like stair climbing can contribute to better health and environmental sustainability.

Methods: The intervention, which included imagery of watching eyes and messages emphasizing reduced use of the lift to promote environmental sustainability, involved placing pro-social stair prompts at the lift in a multilevel campus building. The study observed the behavior of students, faculty, and staff in response to this prompt. Observational data was collected on stair and lift usage before and after the intervention to assess its impact.

Findings: The results indicated that the stair prompt intervention did not significantly increase stair usage. These findings contrast with some previous studies that reported success with similar interventions. Possible reasons for this discrepancy include the inherent convenience of elevator use and the hidden nature of the stairs in the building where the intervention was used, which likely diminished the effectiveness of the prompt.

Conclusion: The study concluded that the visibility and accessibility of stairs are crucial factors in designing effective interventions to promote physical activity. Despite thorough consideration of relevant studies and methodologies, the results underscore the complexity of influencing stair use behavior in a university environment. Future research should explore more robust intervention strategies and ensure that stairs are prominently visible to achieve significant behavior change. This study contributes to the understanding of how visual cues and social prompts can be utilized within public health initiatives to encourage more active and sustainable behaviors.

Introduction

Physical activity encompasses any movement performed by the body's skeletal muscles that necessitates energy expenditure. Physical inactivity has been designated as the fourth primary risk factor for global mortality and morbidity, contributing to approximately 6% of deaths worldwide (World Health Organization, 2009). The term "physical activity" should not be mistaken with "exercise". Exercise is a subcategory of physical activity that is planned, structured, repetitive, and purposeful in the sense that the improvement or maintenance of one or more components of physical fitness is the objective (Manson & Rimm, 2000). Physical activity includes exercise as well as other activities that involve bodily movement and are done as part of playing, working active transportation, and recreational activities. Ascending stairs represent a highly effective form of physical activity conducive to significant caloric expenditure, augmentation of lower limb musculature, refinement of muscular tone in regions such as the gluteus, quadriceps, and calf muscles, and reduction in abdominal girth.

Stair Use Interventions and Behavioral Influences

Research has been conducted in various settings to encourage stair use over elevator use. Complex multi-component interventions that require significant effort to implement (e.g., treatment package approaches) have been investigated in the past, as well as simple interventions that require less effort (e.g., stair prompts alone). Howie and Young (2011) used various campaigns, such as rotating stair prompts in dormitories, competition for prizes through stair climbing, and a scavenger hunt in the stairwell. The stair prompts had various message themes (e.g., Got legs? Use Em. / Take the Stairs and Save the Environment / Use Leg Power). Stair use increased from 24.9% at baseline to 33.2% during the campaign, but stair use returned to baseline levels of 25.4% after the campaign. This study revealed the weakness of using incentives as a behavioral reinforcement along with other components. The incentive rewarded the desired behavior, but unsurprisingly, the desired behavior lessened when the opportunities

for reinforcement ceased. Van Nieuw-Amerongen et al. (2011) made environmental changes to university buildings' stairs to heighten visibility and attractiveness (e.g., green paint in stairwells, speckled carpeting, and glass doors) along with stair prompts and footprints leading to the stairs. The stair prompts had several message themes (e.g., exercise prevents diseases / saves you time / such exercise is free). These modifications increased stair use from 51.8% at baseline to 60.0% after a 4-week intervention. In contrast, Lewis and Eves (2012) reported that a point-of-choice prompt placed inside the elevator did not increase stair use (i.e., 59.4% at baseline compared to 55.1% during the intervention). It was only when multiple stair prompts were added to the point-of-decision area in the building and placed outside the elevator with arrows pointing to stairs near the elevator call button that stair use increased to 60.1%. Boutelle et al. (2001) reported that a stair prompt that read "Take the stairs for your health" increased stair use from 11.1% to 12.7% at a school of public health building, but when the prompt was accompanied by stairwell music and artwork, stair use increased to 15.5%. Although treatment packages using a single stair prompt (or multiple replicas) along with other components are effective, studies focusing on generating multiple stair prompts with variable message themes have shown mixed results. After conducting interviews with stairs and elevator users, Adams and White (2002) found that themes relating to healthfulness, burning calories for weight control, speed for saving time, and healthful lifestyles were factors likely to encourage stair use at a medical school building. Thirty-nine stair prompts with various message themes were developed and placed in the ground-floor directory of an academic building, on different building levels, and in elevators. Researchers concluded that the stair prompts were ineffective for increasing stair use because stair use declined from 20.1% at baseline to 19.5% after the 4-week intervention. Blake et al. (2008) found that rotating five stair prompts with similar prompt themes (e.g., stay fit, stay healthy, save time) did not increase stair use in a hospital.

Ford and Torok (2008) conducted a study demonstrating the effectiveness of motivational signs in promoting physical activity within a college campus setting. The study involved posting signs near elevators and staircases in a college building, with messages such as "Step up to a healthier lifestyle" and "An average person burns 10 calories a minute walking up the stairs." When these signs were displayed, students and faculty exhibited increased utilization of the stairs compared to periods when no signs were present. The results indicated that stair prompts placed inside a stairwell and inside and outside elevators were adequate for increasing stair use from 23.6% at baseline to 28.0% following the intervention. Two of these studies conducted follow-up surveys in which most people reported being regular stair users. Adams and White (2002) reported that respondents thought the intervention was informative but guilt-inducing and less likely to work if overtly trying to change behavior. Blake et al. (2008) reported that most respondents did not notice the stair prompts. Among respondents who did notice the stair prompts, however, the one relating to time-saving was the most noticed. Apart from treatment packages and multiple stair prompt interventions, the effect of stair visibility (e.g., the ability to see stairs from the elevator area) on stair usage has been examined. Grimstvedt et al. (2010) examined stair visibility as a variable apart from a stair prompt in academic buildings. They placed stair prompts on the first three floors and in stairwells that contained the school mascot and a message saying, “Walking upstairs burns almost 5 times as many calories as riding an elevator”. Stair use increased from 35.5% at baseline to 47.5% following 3 weeks of the intervention and remained at 48.9% four weeks after the prompt was removed. Stair visibility was an important factor for stair use as individuals were more likely to use visible stairs as opposed to hidden stairs. Bungum et al. (2007) used various sizes of stair prompts at two academic buildings, five banks, and one garage. Stair prompts had various messages (e.g., Increase your fitness level one step at a time … Take the stairs! / Raise your fitness level one step at a time / Step up to a healthier lifestyle). Results indicated that besides the presence of

stair prompts, being able to see the stairs from the elevator waiting area was an important factor for stair use. At baseline, stair use was 22.8% (16.5% for ascending stairs and 28.8% for descending stairs). After the intervention, stair use increased to 30.8% (25.7% for ascending stairs and 35.1% for descending stairs). These studies thus suggest that stair visibility may contribute significantly to stair use. Lee et al. (2012) implemented a stair prompt intervention alone, without emphasis on treatment packages, multiple stair prompts, or stair visibility. Using a stair prompt, Lee et al. reported that one stair prompt was adequate for increasing stair use. They reported that a 1-week stair prompt intervention increased stair use from 70.1% to 76.5% at a health clinic, from 25.1% to 33.8% at an academic building, and from 13.0% to 17.4% at an affordable housing site. Follow-up assessments for the health clinic and the affordable housing sites showed the increase in stair use was sustained above baseline levels nine months later, with stair use remaining at 72.1% for the health clinic and at 18.6% for the affordable housing site. This study demonstrated that the stair prompt has the potential to increase and maintain stair use; however, overall, the evidence for the efficacy of stair prompts is mixed.

The aforementioned research indicates that the integration of weight management and sustainability themes into stair prompts significantly boosts stair utilization across diverse contexts. This observation implies that individuals exhibit a heightened inclination towards stair selection when exposed to visual cues highlighting both the health advantages (e.g., weight management) and environmental benefits (e.g., sustainability) associated with stair usage, as opposed to alternative modes like elevators.

Building upon these findings, the present study posits that employing multiple themes within a single stair prompt will prove more efficacious than distributing individual themes across separate prompts. This strategy capitalizes on the synergistic effects stemming from the amalgamation of interrelated themes, thereby amplifying the motivational drive for individuals to opt for stairs within their daily activities. Consequently, the strategic use of a watching eyes

image in the study was aimed at harnessing the influential potential of integrated themes to stimulate physical activity and foster more sustainable behaviors among individuals in the university setting.

The Influence of Watching Eyes: A Theoretical Framework

It has been shown that placing images of human eyes in participants' environments often causes them to behave in a more prosocial manner than they otherwise would (Haley & Fessler, 2005; Bateson, Nettle & Roberts, 2006; Burnham & Hare, 2007; Keller & Pfattheicher, 2011; Oda et al., 2011; Nettle et al., 2012; Powell, Roberts & Nettle, 2012; Baillon, Selim & Van Dolder, 2013; Sparks & Barclay, 2013). Prosocial behavior refers to actions that are intended to benefit others or society as a whole. This includes various acts of kindness such as helping, sharing, donating, cooperating, and volunteering. Furthermore, adhering to rules and conforming to socially accepted norms, such as obeying traffic signals like a "Stop" sign or paying for groceries, are also considered examples of prosocial behavior (Arthur & Stephan, 1986). Actions observed by others can have social and reputational consequences, whereas those that go unobserved cannot. Thus, individuals are highly sensitive to cues indicative of observation, and it seems that even subtle cues are in some instances sufficient to modulate behavior, producing behavioral decisions more likely to meet the approval of others. For instance, Bateson et al (2013) examined the "watching eyes" effect at six bicycle racks on a university campus. Three racks had large signs featuring images of eyes installed on the walls above them, while the other three racks served as control locations without eye images. Across both experiments, it was consistently observed that leaflets featuring watching eyes were markedly less likely to be discarded as litter compared to control leaflets. The study revealed that individuals exhibited a decreased propensity to litter when in the company of others nearby, as opposed to when they were alone. Interestingly, this effect was contingent upon contextual factors; in one experiment, the presence of watching eye leaflets only deterred littering

behavior when individuals were not surrounded by others, whereas this effect was not observed in the other experiment. These findings led to the proposition that incorporating cues of observation into packaging could serve as a straightforward yet effective strategy for mitigating littering behaviors.

Furthermore, Manesi et al (2016) investigated in three experiments, the impact of eye images on prosocial behavior, assessed in a laboratory setting. Participants were randomly assigned to view an image of watching eyes (eyes with direct gaze), an image of non-watching eyes (i.e., eyes closed for Study 1 and averted eyes for Studies 2 and 3), or an image of flowers (control condition). Upon exposure to the stimuli, participants decided whether or not to help another participant by completing a dull cognitive typing task on a computer. Three independent studies produced somewhat mixed results. However, a combined analysis of all three studies, with a total of 612 participants, showed that the watching component of the eyes is important for decision-making in this context. Images of watching eyes led to significantly greater inclination to offer help as compared to images of non-watching eyes (i.e., eyes closed and averted eyes) or images of flowers. These findings suggest that eyes gazing at an individual, rather than any proxy to the social presence (e.g., just the eyes), serve as a reminder of reputation. Taken together, Manesi et al (2016) concluded that it is "eyes that pay attention" that can lift the veil of anonymity and potentially facilitate prosocial behavior.

The Synergy of Stair Climbing and Prompts

Interventions geared toward fostering stair climbing, exemplified by strategically placed signage advocating their preference over escalators, have garnered commendable efficacy within public health initiatives van Nieuw-Amerongen, et al., (2011). This straightforward yet impactful approach presents a pragmatic method for augmenting physical activity levels. However, only a single study has examined whether social prompts can be used to influence

the use of the stairs. Crozier (2019) examined how people's perceptions of social norms (what others typically do) and injunctive norms (what others think is socially desirable) influence their use of stairs in a university setting. A survey of 226 adults found a positive relationship between norm perceptions and stair use and an intervention study that included 8007 observations of stair-use choices made over four weeks, showed that the social prompt read, "We're doing it! Are you? Join staff and students in taking the stairs today!" significantly increased stair use compared to a baseline, while the non-social prompts which were developed to encourage individuals to take the stairs for (a) their health, and (b) to expend energy (calories/kilojoules). The health message read, "Did you know … regular stair climbers have stronger lungs, legs, and hearts? Take the stairs for your health!" with a red heart superimposed on the stick figure's chest. To target energy expenditure, the sign read, "Did you know …Stair climbing burns seven times more calories than taking the lift? Burn calories– take the stairs!" with kilojoules located on every other step of the stairs had no such effect.

Moreover, Yoeli and Rand (2022) addressed how to motivate people to adopt behaviors that benefit society as a whole by using prosocial messaging campaigns during COVID-19. They communicated the benefit to the community in three ways: 'COVID-19 Is a Public Health Emergency', 'Avoid spreading coronavirus' (as opposed to 'Avoid getting coronavirus'), and 'Failure to follow these steps put those around you in danger. Do your part to keep our community safe!' (as opposed to '...puts you in danger...to keep yourself safe!'). Indeed, after designing the signs they tested the effectiveness of the messages against an otherwise identical version that focused on the benefit to the self. They found that for increasing prevention behavior intentions, the sign that focused on the benefit to the community meaningfully outperformed the sign that focused on the benefit to the self.

Aligned with the principles elucidated in the studies above, the current study aims to evaluate the impact of visual cues and messaging strategies, exemplified by a poster intervention, on

individuals' choices to utilize stairs instead of lifts. Drawing from insights into the watching eyes effect and effective messaging, the study specifically focuses on promoting stair use and reducing lift usage. Ultimately, this research endeavors to deepen understanding and develop strategies for fostering behaviors that benefit individuals and the university environment.

The Present Study

Stair utilization represents a straightforward avenue for accruing physical activity, particularly among college students and individuals within campus environments. The time constraints commonly voiced by college students due to academic obligations and social engagements highlight the need for investigating strategies that promote active lifestyles within this demographic (Lacaille et al., 2011; Pate et al., 1995).

In light of this context, the principal aim of this study was to investigate a specific research question: Can a social prompt intervention featuring both watching eyes and an environmental sustainability message significantly influence individuals to choose stairs over lifts within a university environment?

One plausible hypothesis is that the presence of watching eyes consistently stimulates pro-social behavior. This notion aligns with evolutionary models, such as the 'reputation-based partner choice' framework concerning cooperation among humans (Sylwester & Roberts, 2010). In these models, individuals exhibit pro-social tendencies as an investment in their social standing, even in situations lacking immediate tangible benefits. A positive social reputation enhances prospects for inclusion in mutually advantageous interactions in the future.

The act of being observed amplifies the reputational repercussions of one's actions. Consequently, individuals are psychologically attuned to the presence or absence of observers and tend to enhance their pro-social conduct when under observation compared to when

unobserved. Artificial watching eyes capitalize on this sensitivity to observation, potentially influencing behavior towards increased pro-sociality (Wang et al., 2023).

On the Other hand, stair use is not only a simple form of physical activity that increases caloric expenditure to help prevent weight gain but also it is a more sustainable behavior for traveling within multilevel buildings. For able-bodied individuals, using the stairs helps conserve electricity and the environmental cost of producing energy. Environmental sustainability is a pivotal focus in modern educational systems, aiming to achieve sustainability through measures such as energy and water conservation. While a significant portion of energy consumption arises from building heating and cooling systems, electrical equipment, and lighting, elevators also contribute to energy usage, accounting for approximately 1% to 7% of total energy consumption, particularly in high-rise buildings with greater occupancies (Hakala, Siikonen, Tyni, & Ylinen, 2001). Given the substantial costs associated with powering high-traffic buildings, even a 1%-7% reduction in elevator usage can lead to significant savings, amounting to hundreds of thousands of dollars.

In line with these sustainability efforts, the poster used in this study incorporated a watching eyes image to create a perception of observation, encouraging individuals to fully engage with the poster and read its message promoting stair usage. The primary slogan "Use your Power, Not the Planet’s!!—Take the Stairs!" was accompanied by three distinct message themes. It was hypothesized that at least one of these themes or the watching eyes could serve as a motivational factor for choosing stairs, regardless of individuals' time constraints. Furthermore, the combined impact of integrating these themes was anticipated to significantly bolster stair usage, promoting physical activity while also contributing to environmental sustainability by reducing reliance on elevators.

The potential of the present study

The present study holds significant potential across multiple domains, ranging from behavioral science to public health and environmental sustainability. At its core, the study explores the efficacy of pro-social messaging strategies (Forberger et al., 2022), particularly utilizing visual cues like watching eyes, in influencing individuals' decisions regarding mobility choices associated with the use of stairs rather than elevators. This exploration aligns with the growing body of research in behavioral science, shedding light on how subtle cues can impact human decision-making processes. A comprehensive review of staircase interventions through signage since the 1980s found that point-of-choice prompts could boost stair usage by 52% (Bauman et al 2017)

From a public health perspective, the study's focus on promoting stair usage and physical activity is highly relevant. Increased physical activity is associated with numerous health benefits, including improved cardiovascular health, weight management, and overall well-being (Lewis & Eves, 2012). By encouraging individuals to engage in more active behaviors, the study has the potential to contribute positively to public health outcomes, particularly in sedentary populations such as college students or office workers.

Moreover, the study's implications extend to environmental sustainability. Promoting stair usage over elevator reliance can lead to reduced energy consumption, contributing to sustainability goals and efforts to mitigate climate change. Elevators, particularly in high-rise buildings, can account for a significant portion of energy usage. Therefore, initiatives aimed at reducing elevator usage align with broader environmental conservation objectives.

Practically, the findings of the study can be applied in various settings, including educational institutions, workplaces, and public spaces. Strategies identified through the study, such as utilizing visual cues and pro-social messaging, can be implemented to encourage healthier and more sustainable behaviors among individuals.

Furthermore, the study's insights can inform policy-making and urban planning initiatives. Policymakers can use the findings to design and implement interventions that promote physical activity, reduce energy consumption, and foster a culture of sustainability. Such policy interventions can have far-reaching impacts on public health, environmental quality, and overall quality of life in communities.

In summary, the present study's potential lies in its contributions to behavioral science, public health promotion, environmental sustainability, practical applications in real-world settings, and implications for policy development. Its findings can drive positive change across multiple domains, benefiting individuals, communities, and the environment alike.

Methods

The study was conducted in compliance with the guidelines of the Human Ethics Committee of the Faculty of Health, Engineering, and Computer Science at The University of Waikato *(refer to Appendix A)*. Data collection took place at the University of Waikato, Hamilton Campus, specifically on the ground floor of the TT Building, in proximity to the lift. The building is a seven-level structure housing classrooms, offices, and laboratories. Upon entering through the main building entrance, the stairs are obscured from view, while the elevator is prominently visible. To access the stairs, individuals must walk straight ahead for approximately 6 meters (20 feet) or use a rear entrance to reach the corridor leading to the stairs. Upon reaching the elevator waiting area, individuals must navigate through a corridor and a fire door if they are to use the staircase.

The primary occupants of the TT building are students and faculty members, although staff and visitors also frequent these spaces. The study observed all potential users of the stairs (e.g., students, and staff members), except individuals who seemed incapable of using stairs (e.g., those with leg braces, using wheelchairs, carrying large/heavy objects).

Procedure and Materials

Two identical posters *(Appendix B)* were used, each measuring 60 cm x 55 cm and rendered in a vibrant red color for enhanced visibility with complementary color combinations. Positioned prominently at the top of the posters was the overarching goal "Our aim is to reduce the use of the lift." The middle part of the posters featured a conspicuous "watching eyes" image, symbolizing visual cues, strategically chosen to create a perception of observation and promote prosocial behavior *(Appendix D)*

On the image, we conveyed the message "Share our goal," reflecting our collective aspiration. In the lower section, emphasis was placed on "Help us... Use your power, not the planet's," signifying the importance of individual agency in promoting physical activity and environmental sustainability respectively. The inclusion of "Take the stairs" with an arrow directed towards the stairwell was intentional, to make the stairs more obvious, given that they were not directly visible. Stair signage with arrows identical to those on the posters was also placed on stairwell doors for added visibility and clarity.

Overall, these strategically positioned posters were designed to encourage prosocial behaviors, promote physical activity, and raise awareness about environmental sustainability among individuals navigating the university setting.

Research Design

Data collection occurred in two phases. The first one was from September 18 to October 5, 2023. This period spanned three weeks, with data collection occurring on Mondays through Thursdays from 10:30 am to 12:45 pm.

During the first phase of the data collection, observations took place during a baseline week, an experimental week, and a subsequent baseline week. During the baseline weeks, no posters were present near the lift. During the experimental week, the identical posters *(Appendix C)* were prominently displayed on the side walls of the lift doors. This allowed for a comparative analysis of mobility behaviors between the baseline and experimental conditions, facilitating insights into the poster's impact on individuals' mobility decisions.

In the second phase of data collection, conducted over four weeks from May 6 to May 30, 2024, a methodological change was implemented to increase the sample size of stair and lift users. Unlike the first phase, this phase commenced with the experimental weeks (Weeks 4 and 5), followed by the baseline weeks (Weeks 6 and 7). All other parameters were kept consistent with those in the first phase to ensure comparability.

While collecting the data the observer sat on a chair on the ground floor lobby of the building within 3 m to 4.5 m (10 ft to 15 ft) from the elevators and, approximately 10 m to 12 m (35 ft to 40 ft) from the stairs. Data collection utilized laptop spreadsheets throughout both the baseline and experimental weeks (*Appendix E*). The study meticulously documented individuals' choices regarding the utilization of stairs or escalators, paying particular attention to a diverse range of demographic variables including age, gender, ethnicity, and body type. The inclusion of ethnicity as a variable of interest was due to its potential impact on cultural norms, preferences, and societal influences related to physical activity and transportation choices. Understanding how different ethnic groups engage with stair and escalator usage can shed light on cultural perspectives and behavioral patterns, contributing to more targeted interventions and strategies for promoting physical activity within specific communities.

Similarly, the consideration of body type as an important variable stems from its relevance to physical capabilities and comfort levels when using stairs or escalators. Individuals with

varying body types may have different experiences and preferences regarding mobility options, with factors such as fitness levels, mobility restrictions, and comfort playing a role in their decision-making process. By examining the relationship between body type and mode of transport choice, the study aims to explore the nuances of mobility behavior and inform initiatives that cater to diverse physical needs and preferences.

During the subsequent experimental phase, the researcher closely observed individuals' reactions (positive, negative, or ignored) after exposure to a promotional poster. Specifically, the researcher recorded any shifts in participants' decision-making processes concerning escalator usage post-exposure to the poster. This assessment included evaluations of alterations in participants' inclinations toward escalator usage in response to the poster's messaging advocating for the reduction of elevator reliance. This detailed observation aimed to discern whether individuals demonstrated positive reactions by opting for stairs after viewing the poster, negative reactions by continuing to use the lift, or ignored reactions by not acknowledging the poster for various reasons.

Statistical Analyses

Odds ratios (OR) were calculated as a statistical measure to determine the strength of the association between two events, typically an exposure and an outcome. For example,

Odds of exposure among cases = A / B, Odds of exposure among controls = C / D

For example, consider a study investigating the association between a new drug (exposure) and the recovery from a disease (outcome).

A (Recovered with the drug): 80, B (Not recovered with the drug): 20, C (Recovered without the drug): 40, and D (Not recovered without the drug): 60

Calculation: Odds Ratio (OR)= 80 * 60 = 4800 =6

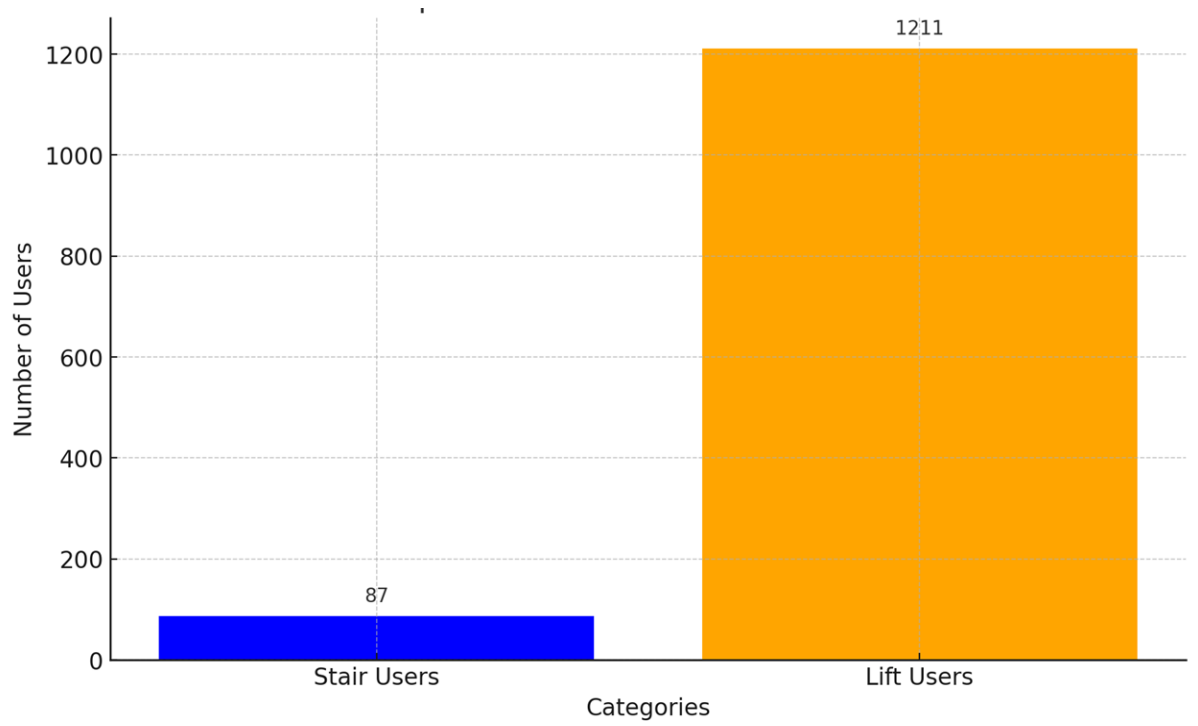
20*40 800

Interpretation: The OR of 6 means that patients who took the drug have 6 times the odds of recovery compared to those who did not, indicating a strong positive association between the drug and recovery.

Results

Descriptive Statistics

Over the seven weeks, 1298 counts were made during observation periods (56 hours of observation over the seven weeks). In total, 347 males and 951 females aged between 20-60 years were observed using the stairs (n=87) or the elevator (n=1211) –see *Figures 1 and 2.*



Phase -1 (Week 1-3)

Table 1. The odds ratio is approximately 0.981, with a 95% confidence interval ranging from 0.483 to 1.993.

Odds Ratio (Exp/Control)	0.980912
95% Confidence Interval	[0.483, 1.993]
95% Left-Sided Interval	[0.541, +∞]
95% Right-Sided Interval	[-∞ , 1.778]
P-value	0.478755
Z-score	0.053278

The odds ratio (OR) for the outcome in the experimental group relative to the control group was 0.981, with a 95% confidence interval (CI) ranging from 0.483 to 1.993. An odds ratio close to 1 suggests that the likelihood of the outcome occurring in the experimental group is almost identical to that in the control group. The wide confidence interval, encompassing values below and above 1, indicates a high level of uncertainty around the estimate, and that the true effect could either be in favor of the baseline or the experimental weeks. The p-value associated with this odds ratio was 0.479, which is substantially higher than the conventional threshold of 0.05 used to determine statistical significance. This high p-value indicates that there is a strong probability that the observed difference is due to random chance rather than a true effect. The Z-score, a measure of how many standard deviations the observed value is from the null hypothesis value, was 0.053, further suggesting that the observed odds ratio is very close to the null hypothesis value of 1.

Phase 2 – (Week 4-7)

Table 2. The odds ratio is approximately 1.183, with a 95% confidence interval ranging from 0.586 to 2.388.

Odds Ratio (Exp/Control)	1.182644
95% Confidence Interval	[0.586, 2.388]
95% Left-Sided Interval	[0.656, +∞]
95% Right-Sided Interval	[-∞ , 2.133]
P-value	0.319919
Z-score	0.467926

For the second phase, the odds ratio was 1.183, with a 95% confidence interval from 0.586 to 2.388. This indicates a slight increase in the odds of the outcome in the experimental group compared to the control group. However, similar to Phase 1, the confidence interval includes 1, suggesting that this apparent increase might not be statistically significant and could be due to chance. The p-value for this phase was 0.320, which again is well above the 0.05 threshold, indicating a lack of statistical significance. The Z-score was 0.468, reinforcing that the observed odds ratio does not significantly deviate from the null hypothesis.

The study also revealed that among the ethnic groups, the highest number of users were Kiwi (720), followed by Asian (355), Māori (197), and then others (26) -see *Figure 3*. These findings align with the broader context of the study, which explored the demographic factors influencing stair and lift usage in a university setting. Understanding the distribution of stair and lift users across different ethnic groups is crucial for tailoring interventions that promote physical activity and sustainability on campus.

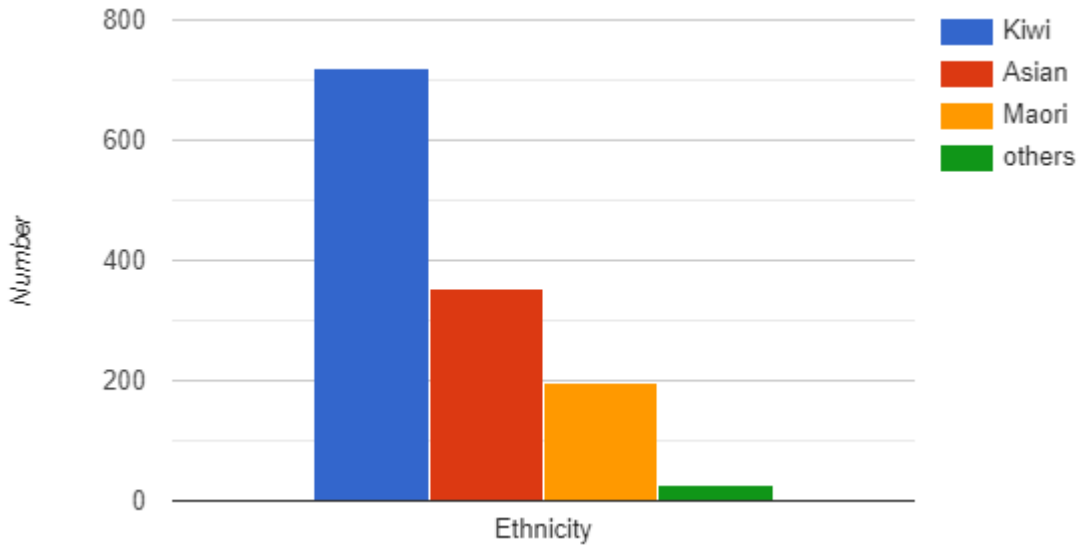


Figure 3. It shows that different ethnic groups use the lift or stairs in the TT building.

Furthermore, Table 3 provides a detailed breakdown of stair and lift usage by gender across seven weeks of observation within the TT building. Each week is further divided into daily counts, highlighting the number of males and females opting for either the lift or stairs. The table reveals trends in physical activity choices, offering insights into gender-specific preferences and variations over time. Notably, the total counts indicate a significantly higher lift usage among females (906 users) compared to males (305 users), while both genders exhibit similar patterns in their preference for stair usage over the lift. This data underscores the importance of targeted interventions to promote stair usage and enhance physical activity among the building's users.

Table 3. Weekly and daily distribution of stair and lift users by gender

	No. of Males (Stairs)	No. of Males (Lift)	No. of Females (Stairs)	No. of Females (Lift)
Week 1				
1	4	10	7	14
2	3	19	9	58
3	0	9	1	31

4	2	11	0	23
Week 2				
Day 1	3	4	1	10
Day 2	0	9	0	23
Day 3	4	7	0	16
Day 4	2	4	1	17
Week 3				
Day 1	1	8	0	11
Day 2	1	12	2	33
Day 3	0	15	4	30
Day 4	3	8	2	20
Week 4				
Day 1	6	32	3	85
Day 2	6	12	1	67
Day 3	2	16	3	34
Day 4	2	27	2	79
Week 5				
Day 1	0	13	0	38
Day 2	0	11	0	30
Day 3	0	6	0	33
Day 4	0	4	0	20
Week 6				
Day 1	0	9	2	20
Day 2	0	7	2	18
Day 3	0	21	2	64
Day 4	0	3	0	22
Week 7				
Day 1	1	9	1	51
Day 2	1	3	1	15
Day 3	0	6	0	22
Day 4	0	10	2	22
Total	**41**	**305**	**46**	**906**

Inferential Analysis

In both phases of the study, the results indicate no statistically significant difference in the odds of the outcome between the experimental and baseline weeks. The odds ratios were close to 1,

and the confidence intervals in both phases included 1, indicating that the true effect could be neutral or opposite to what is observed. The high p-values and low Z-scores in both phases further suggest that the differences observed are not statistically significant and are likely due to random variation.

Results indicated that the modified stair prompt used in the present study was ineffective in motivating individuals to walk up the stairs beyond baseline levels. The social prompt intervention, featuring watching eyes and environmental sustainability messages, did not significantly alter the stair usage behavior within the university context over the study period.

Discussion

The goal of the present study was to promote greater use of the stairs by using the watching eyes effect and a pro-social message among students, faculty, and staff on the university campus. Walking up the stairs in a university setting was hypothesized to be a feasible way for individuals to increase physical activity. The pro-social stair prompt, expected to be effective in encouraging stair use, was adapted for research in this setting. Themes deemed relevant to college students, faculty, and staff, such as increasing physical activity, testing the watching eyes effect for promoting prosocial behavior, and reducing energy consumption for sustainability were expected to bolster motivation toward stair use. However, none of the three observational variables showed an increase following the pro-social stair prompt intervention. This lack of response was observed particularly in the building where the stairs were hidden. Thus, the finding from the present study, that the stair prompt intervention alone did not increase stair use, was different from that of previously reported studies (Crozier, 2019).

There are several possible reasons for this unexpected response to the stair prompt. In the stairs and elevator choice scenario, the percentage of lift use can be high as the lift is always available

for use and requires less physical effort (Eves & Webb, 2006; Nocon et al., 2010). It is infrequent for a stair-prompt intervention alone to increase the percentage of individuals walking up the stairs above the mid-fifties. In the two buildings in the Lee et al. (2012) study, the percentage of individuals walking up the stairs after the stair prompt intervention was lower than 35%. Some studies reported higher percentages of individuals walking up the stairs (e.g., from 50% to 60%), while other studies reported lower percentages (Blake et al., 2008; Eckhardt, 2013; Kerr, Eves, & Carroll, 2001b; Kwak, Kremers, van Baak, & Brug, 2007; Lewis & Eves, 2012; Olander & Eves, 2011a; van Nieuw-Amerongen, et al., 2011). Because the buildings in the present study had very little stair use initially, significant increases in the percentage of individuals taking the stairs above baseline levels would have been difficult to achieve. In studies that were able to increase the percentage of individuals walking up the stairs by 60% after an intervention, aggressive treatment packages were implemented (Lewis & Eves, 2012; van Nieuw-Amerongen, et al., 2011). It is also likely that future studies aiming to encourage stair use for physical activity would find treatment packages of such magnitudes unfeasible.

Previous studies have shown that men and women often respond to stair prompt interventions with increases in stair use, but stair use percentages between men and women were rarely similar (Eves, Webb, & Mutrie, 2006; Grimstvedt et al., 2010; Kerr, et al., 2001b; Kwak et al., 2007; Boutelle et al., 2001; Howie & Young, 2011; Olander & Eves, 2011a). In some studies, men used the stairs more than women, while in other studies, the opposite was true. The reasons for these differences are unknown.

The effect of stair visibility on stair use is also inconsistent. An individual standing in front of an elevator who sees the stairs may not necessarily take the stairs over the elevator. However, placing a stair prompt at the point of decision in a building has been shown to predict stair use. Distance from the elevator to the stairs has not been shown to predict stair use (Bungum,

Meacham, & Truax, 2007). The volume of space visible from a given point in space in a building's layout (i.e., the isovist) may be related to stair use. Eves, Olander, Nicoll, Puig-Ribera, and Griffin (2009) confirmed that a larger isovist contributed to stair prompt effectiveness since a larger isovist also increases the chance of seeing stairs. Olander and Eves (2011) examined stairs and elevator distance upon entry into a building and reported that individuals were more likely to walk up the stairs if the distance to the stairs was shorter than the distance to the elevator. Thus, these findings suggest that seeing stairs, particularly when entering a building, may help to promote stair use if walking up the stairs is considered convenient.

Results from this study, however, were contrary to expectations. The stair prompt did not affect individuals walking up the stairs in the building. In studies where buildings had stairs and elevators adjacent—thus making stairs visible—Eves, Webb, and Mutrie (2006) and Grimstvedt et al. (2010) reported men took the stairs more often than women. However, Kerr, et al. (2001b) and Kwak et al. (2007) reported women took the stairs more than men; van Nieuw-Amerongen et al. (2011) reported no difference between genders. In other studies that did not report building layouts for stairs and elevators, it is difficult to determine whether stair visibility affected men and women differently. Boutelle et al. (2001), Howie and Young (2011), and Olander and Eves (2011) reported gender differences in stair use, while Bungum et al. (2007) and Lewis and Eves (2012) reported no gender differences.

One crucial factor that may have impacted the overall response was the visibility of the stairs. It was observed that the stairs were somewhat hidden from immediate view, which likely contributed to a less effective response to the prompts. For interventions of this nature to be successful, the stairs must be visible and easily accessible. When individuals do not have a clear line of sight to the stairs, the likelihood of them opting to use the stairs over the lift decreases significantly Nicoll, G., & Zimring, C. (2009). Therefore, future studies aiming to

promote stair usage should ensure that the stairs are prominently visible to maximize the impact of the prompts. This visibility factor is critical in designing effective behavior change interventions in public and institutional settings. Despite a careful review of relevant studies and incorporating their findings into our intervention design, our results were not as significant as anticipated. This underscores the complexity of behavior change and the need to address multiple factors, including visibility and consistent methodology, to enhance the effectiveness of such interventions.

To summarize, while the presence of watching eyes and a multifaceted approach of pro-social messaging have been shown in previous studies to influence pro-social behavior, the specific intervention used in this study did not significantly impact the choice to use stairs over lifts.

Further research is necessary to explore different messaging strategies, durations, and perhaps combinations of interventions to effectively promote stair usage in university settings. This study contributes to the understanding of how visual cues and social prompts can be utilized within public health initiatives to encourage more active and sustainable behaviors.

Limitations

One of the key limitations of the study was the visibility of the stairs. The stairs were somewhat hidden, which likely contributed to a less effective response to the social prompts. For interventions designed to promote stair usage, the stairs must be prominently visible and easily accessible to ensure the maximum impact of the prompts. When individuals do not have a clear line of sight to the stairs, their likelihood of opting for stairs over the lift diminishes significantly.

Additionally, a methodological change implemented during the second phase of the data collection of the study presents another limitation. This change could have introduced variability in the results, making it difficult to directly compare the outcomes of the first and

second phases. Consistency in methodology is crucial for obtaining reliable and comparable data across different phases of a study. Therefore, this alteration in methodology during the second phase should be considered when interpreting the results and drawing conclusions from the study. Future research should aim to maintain consistent methodologies throughout all phases to ensure the reliability and validity of the findings.

Conclusion

Within the last three decades, there has been great interest in using stair prompts to promote stair use for physical activity in various settings. Accordingly, an overwhelming majority of research findings have corroborated the idea that stair-prompt interventions are effective for promoting stair use, thus suggesting stair use whenever possible could be a useful tool for combating the effects of a sedentary lifestyle—a lifestyle that puts individuals at risk of poor health and increased financial costs associated with weight-related illnesses. Therefore, the present study used a prompt consisting of a pro-social message with the watching eyes visual cues to bolster its efficacy as one approach for encouraging stair use for physical activity. Through the use of a baseline-experimental design, the display of the pro-social prompt in a university setting did not produce the expected increase in individuals taking up the stairs and reduce the use of lifts, as evidenced by statistical procedures used herein. In the case of the present study, high lift use may have made it less likely that any intervention approach would increase stair use. Apart from this unexpected finding, it also appears that women might be less likely than men to use stairs if the stairs are hidden. Thus, the findings from the present study suggested that the visibility of stairs from the elevator waiting areas, and potentially the visibility of stairs upon building entry, may play an important role in the motivational process for individuals to walk up the stairs over taking the elevator.

Further research is necessary to explore different messaging strategies, durations, and perhaps combinations of interventions to effectively promote stair usage in university settings. This study contributes to the understanding of how visual cues and social prompts can be utilized within public health initiatives to encourage more active and sustainable behaviors.

References

Adams, J., & White, M. (2002). A systematic approach to the development and evaluation of an intervention promoting stair use. *Health Education Journal,* 61(3), 272-286.Brief, A. P., & Motowidlo, S. J. (1986). Prosocial organizational behaviors. *The Academy of Management Review, 11*(4), 710-725.

Baillon, A., Selim, A., and van Dolder, D. (2013). On the social nature of eyes: the effect of social cues in interaction and individual choice tasks. *Evol. Hum. Behav*. 34, 146–154.

Batson, C. D., Ahmad, N., & Lishner, D. A. 2009. Empathy and altruism. *Handbook of Positive Psychology,* 2, 485-498.

Bateson M, Callow L, Holmes JR, Redmond Roche ML, Nettle D 2013. Do Images of 'Watching Eyes' Induce Behaviour That Is More Pro-Social or More Normative? A Field Experiment on Littering. *PLoS ONE* 8(12)

Bateson, M., Nettle, D., and Roberts, G. (2006). Cues of being watched enhance cooperation in a real-world setting. *Biol. Lett.* 2, 412–414.

Bauman A, Milton K, Kariuki M, et al.2017. Is there sufficient evidence regarding signage-based stair use interventions? *A sequential meta-analysis*. BMJ Open 7(11)

Blake, H., Lee, S., Stanton, T., & Gorely, T. (2008). Workplace intervention to promote stair use in an NHS setting. *International Journal of Workplace Health Management,* 1(3), 162-175.

Boutelle, K. N., Jeffery, R. W., Murray, D. M., & Schmitz, M. K. H. (2001). Using signs, artwork, and music to promote stair use in a public building. *American Journal of Public Health*, 91(12), 2004-2006.

Burnham, T. C., & Hare, B. (2007). Engineering Human Cooperation. *Hum. Nat.* 18, 88–108.

Bungum, T., Meacham, M., & Truax, N. (2007). The effects of signage and the physical environment on stair usage. *Journal of Physical Activity and Health*, 4, 237-244.

Crozier, J. (2019). Step Up: Exploring the impact of social prompts on stair use in a university setting. *Psychology of Sport and Exercise*, 41, 99-106

Eves, F. F., &Webb, O. J. (2006). Worksite interventions to increase stair climbing; reasons for caution. *Preventive Medicine*, 43(1), 4-7.

Forberger, S., Wichmann, F., & Comito, C. N. (2022). Nudges used to promote physical activity and to reduce sedentary behavior in the workplace: Results of a scoping review. *Preventive Medicine, 155*, 106922.

Ford, M. A., & Torok, D. (2008). Motivational signage increases physical activity on a college campus. *Journal of American College Health*, 57(2), 242-244.

Grimstvedt, M. E., Kerr, J., Oswalt, S. B., Fogt, D. L., Vargas-Tonsing, T. M., & Yin, Z. (2010). Using Signage to promote stair use on a university campus in hidden and visible stairwells. *Journal of Physical Activity and Health*, 7(2), 232-238.

Hakala, H., Siikonen, M., Tyni, T., & Ylinen, J. (2001). Energy-efficient elevators for tall buildings. KONE, 1-13.

Haley, K. J., and Fessler, D. M. T. (2005). Nobody's watching? Subtle cues affect generosity in an anonymous economic game. *Evol. Hum. Behav*. 26, 245–256.

Howie, E. K., & Young, D. R. (2011). Step it up: A multicomponent intervention to increase stair use in a university residence build. *American Journal of Health Promotion*, 26(1), 2-5.

LaCaille, L. J., Dauner, K. N., Krambeer, R. J. & Pedersen, J. (2011). Psychosocial and environmental determinants of eating behaviors, physical activity, and weight change among college students: A qualitative analysis. *Journal of American College Health*, 59(6), 531-538.

Lee, K. K., Perry, A. S., Wolf, S. A., Agawal, R., Rosenblum, R., Fisher, S., Grimshaw, V. E.,& Silver, L. D. (2012). Promoting routine stair use: Evaluating the impact of a stair prompt across buildings. *American Journal of Preventive Medicine,* 42(2), 136-141.

Manson, J.E, & Rimm, E.B. "Primary prevention of coronary heart disease in women through diet and lifestyle". *New England Journal of Medicine.* 343 (1),16–22.

Lewis A. L., Eves F.-Testing the theory underlying the success of point-of-choice prompts: A multi-component stair climbing intervention. *Psychol. Sport Exerc.* 13, 126–132

Manesi, Z., Van Lange, P. A. M., & Pollet, T. V. (2016). Eyes wide open: Only eyes that pay attention promote prosocial behavior. *Evolutionary Psychology, 14*(2), 1-15.

Nettle, D., Nott, K., and Bateson, M. (2012). "Cycle thieves, we are watching you": impact of a simple signage intervention against bicycle theft. PLoS ONE 7, e51738.

Nicoll, G., & Zimring, C. (2009). Design factors influencing perceptions of stair use in a university workplace: A qualitative study. Environment and Behavior, 41(1), 101-122.

Oda, R. (2019). Is the watching-eye effect a fluke*? Lett. Evol. Behav. Sci*. 10, 4–6.

Oda, R., Niwa, Y., Honma, A., and Hiraishi, K. (2011). An eye-like painting enhances the expectation of a good reputation. *Evol. Hum. Behav.* 32, 166–171.

Pfattheicher, S., & Keller, J. (2015). The watching eyes phenomenon: The role of a sense of being seen and public self-awareness. *European Journal of Social Psychology*, 45, 560–566.

Pate, R. R., Pratt, M., Blair, S. N., Haskell, W. L., Macera, C. A., Bouchard, C., Buchner, D., & Wilmore, J. H. (1995). Physical activity and public: A recommendation from the Center for Disease Control and Prevention and the American College of Sports Medicine. *Journal of American Medical Association,* 273(5), 402-407.

Roberts G (1998) Competitive altruism: from reciprocity to the handicap principle. *Proceedings of the Royal Society of London Series B-Biological Sciences* 265: 427.

Sparks, A., and Barclay, P. (2013). Eye images increase generosity, but not for long: the limited effect of a false cue. *Evol. Hum. Behav.* 34, 317–322.

Sylwester K, Roberts G (2010) Cooperators benefit through reputation-based partner choice in economic games. *Biol Lett* 6: 659-662.

Van Lange, P. A. M., & Manesi, Z. (2023). Reputation reminders: When do eye cues promote prosocial behavior? *The Spanish Journal of Psychology, 26*, e8, 1-11.

Van Nieuw-Amerongen, M. E., Kremers, S. P. J., de Vries, N. K., & Kok, G. (2011). The use of prompts, increased accessibility, visibility, and aesthetics of the stairwell to promote stair use in a university building. *Environment and Behavior*, 43(1), 131-139

WHO. Global health risks: mortality and burden of disease attributable to selected major risks. Geneva: World Health Organization; 2009.

Wang, R., Wang, Y., Chen, C., Huo, L., and Liu, C. (2023). How do eye cues affect behaviors? Two meta-analyses. *Curr. Psychol*. 1–18.

Yoeli, E., & Rand, D. (2020). A checklist for prosocial messaging campaigns such as COVID-19 prevention appeals. Scientific Reports, 11(1).

Acknowledgment

I want to express my heartfelt gratitude to Professor Rich Masters for his exceptional guidance and unwavering support throughout this study. His invaluable insights, encouragement, and expertise have been instrumental in shaping the direction and success of this research.

Additionally, I am deeply thankful to my family and friends for their constant encouragement, patience, and understanding. Their support has been a source of strength and motivation, allowing me to persevere through the challenges encountered during this study.

This research is a testament to these individuals' collective efforts and contributions, and I am profoundly appreciative of their involvement.

Appendices

(Appendix A)

The University of Waikato
Private Bag 3105
Hamilton, New Zealand, 3240
0800 WAIKATO (924 528)

HECS Human Ethics Committee
Brett Langley
Telephone +64 77 838 4060
Hecs-ethics@waikato.ac.nz

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

20 September 2023

Heena Talwar

Rich Masters

Re: HECS Ethics Approval of Application HREC(HECS)2023#55 "Step Up: Using Social prompts to reduce lift usage in a university context"

Dear Heena:

Thank you for submitting your amended application HREC(HECS)2023#55 for ethical approval.

We are pleased to provide formal approval for your project, including the following activities:

- The strategic placement of a prosocial message designed to create a positive association with stair usage above the lift in the TT building of the University of Waikato (with permission of relevant authority from University of Waikato).
- Passive and unobtrusive observation and recording of participants' choices between stairs and elevators as well as any observed interactions or reactions to the social prompts.
- Participants will not be informed of the study or engaged in any way.

Please contact the committee by email (hecs-ethics@waikato.ac.nz) if you wish to make changes to your project as it unfolds, quoting your application number with your future correspondence. Any minor changes or additions to the approved research activities can be handled outside the monthly application cycle.

We wish you all the best with your research.

Kind regards,

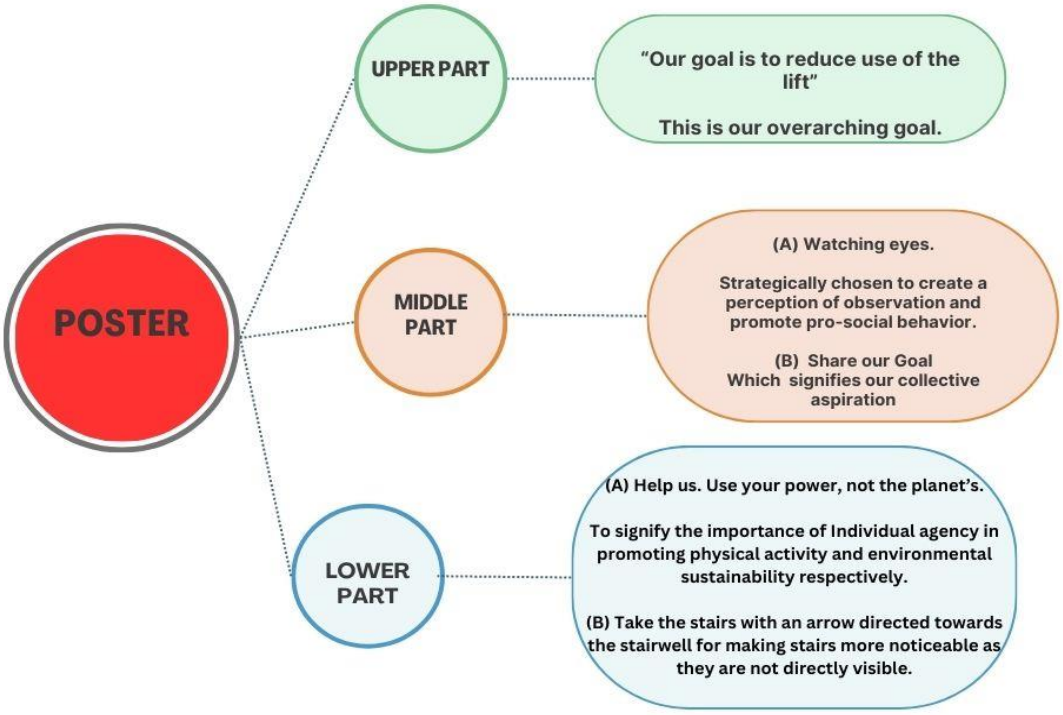
Brett Langley, PhD
Chairperson
HECS Human Ethics Committee
University of Waikato

(Appendix B)

(Appendix C)

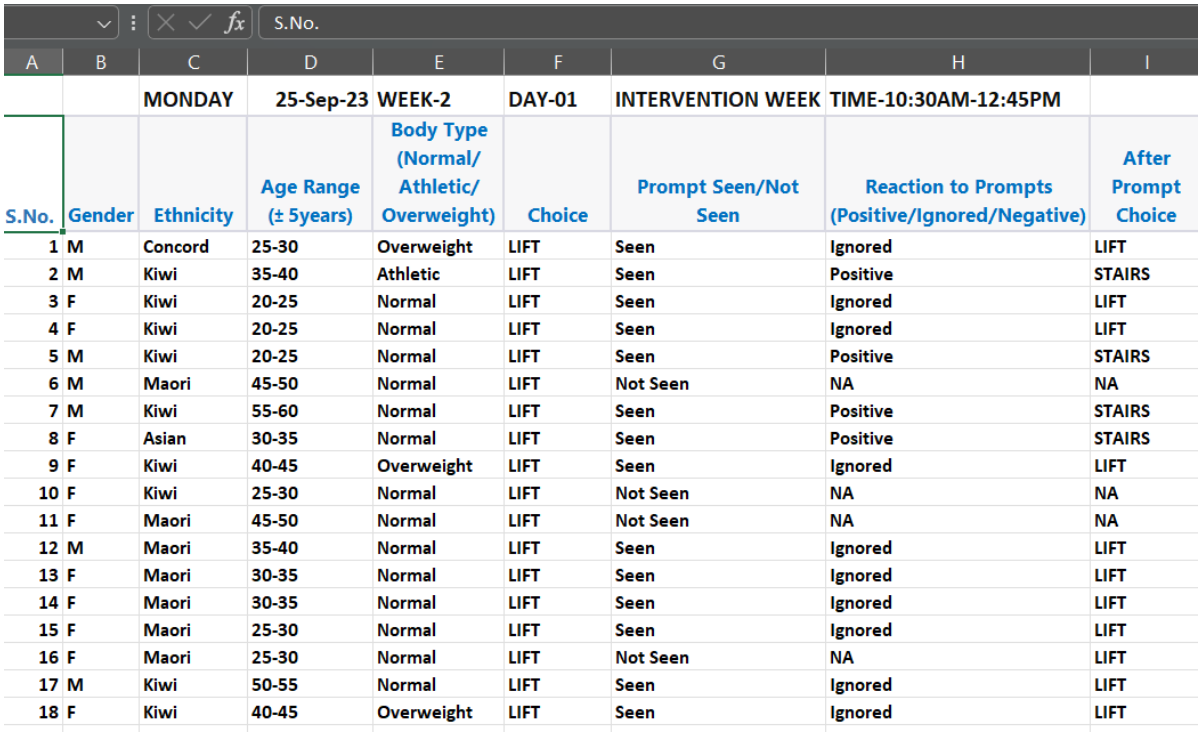

OUR GOAL IS TO
REDUCE USE OF
THE LIFT
SHARE OUR GOAL
HELP US...
USE YOUR POWER,
NOT THE PLANET'S
TAKE THE STAIRS
OUR GOAL IS TO
REDUCE USE OF
THE LIFT
SHARE OUR GOAL
HELP US...
USE YOUR POWER,
NOT THE PLANET'S
TAKE THE STAIRS
Teaching Technology

(Appendix D)


POSTER
UPPER PART
"Our goal is to reduce use of the lift"
This is our overarching goal.
MIDDLE PART
(A) Watching eyes.
Strategically chosen to create a perception of observation and promote pro-social behavior.
(B) Share our Goal
Which signifies our collective aspiration
LOWER PART
(A) Help us. Use your power, not the planet's.
To signify the importance of Individual agency in promoting physical activity and environmental sustainability respectively.
(B) Take the stairs with an arrow directed towards the stairwell for making stairs more noticeable as they are not directly visible.

(Appendix E)

		Monday	18.Sep.23	Day 1	WEEK 1- BASELINE	Time-10:30am-12:45pm	
S.no.	Gender	Ethnicity	Age Range (± 5years)	Body Type (Normal/ Athletic/ Overweight)	Choice	Prompt Seen/Not Seen	Reaction to Prompts (Positive/Ignored/Negative)
1	F	Asian	35-40	Normal	Stairs	NA	NA
2	M	Pakeha	25-30	Overweight	Lift	NA	NA
3	F	Pakeha	20-25	Normal	Lift	NA	NA
4	F	Maori	20-25	Overweight	Lift	NA	NA
5	M	Maori	20-25	Overweight	Lift	NA	NA
6	F	Maori	20-25	Overweight	Lift	NA	NA
7	F	Kiwi	20-25	Normal	Stairs	NA	NA
8	M	Kiwi	25-30	Athletic	Stairs	NA	NA
9	F	Kiwi	25-30	Athletic	Stairs	NA	NA
10	F	Maori	35-40	Normal	Lift	NA	NA
11	F	Maori	30-35	Normal	Lift	NA	NA
12	M	Kiwi	25-30	Normal	Lift	NA	NA
13	F	Kiwi	35-40	Normal	Lift	NA	NA
14	F	Pakeha	25-30	Normal	Lift	NA	NA
15	M	Kiwi	20-25	Athletic	Stairs	NA	NA
16	F	Kiwi	20-25	Athletic	Stairs	NA	NA
17	M	Kiwi	40-45	Overweight	Lift	NA	NA
18	F	Kiwi	20-25	Athletic	Lift	NA	NA
19	M	Kiwi	20-25	Athletic	Lift	NA	NA
20	F	Kiwi	25-30	Normal	Lift	NA	NA
21	M	Pakeha	30-35	Normal	Stairs	NA	NA
22	M	Kiwi	45-50	Normal	Lift	NA	NA
23	F	Kiwi	35-40	Normal	Lift	NA	NA
24	F	European	40-45	Normal	Stairs	NA	NA
25	M	Maori	20-25	Overweight	Lift	NA	NA
26	M	Maori	20-25	Overweight	Lift	NA	NA



S.No.

A	B	C	D	E	F	G	H	I
		MONDAY	25-Sep-23	WEEK-2	DAY-01	INTERVENTION WEEK	TIME-10:30AM-12:45PM	
S.No.	Gender	Ethnicity	Age Range (± 5years)	Body Type (Normal/ Athletic/ Overweight)	Choice	Prompt Seen/Not Seen	Reaction to Prompts (Positive/Ignored/Negative)	After Prompt Choice
1	M	Concord	25-30	Overweight	LIFT	Seen	Ignored	LIFT
2	M	Kiwi	35-40	Athletic	LIFT	Seen	Positive	STAIRS
3	F	Kiwi	20-25	Normal	LIFT	Seen	Ignored	LIFT
4	F	Kiwi	20-25	Normal	LIFT	Seen	Ignored	LIFT
5	M	Kiwi	20-25	Normal	LIFT	Seen	Positive	STAIRS
6	M	Maori	45-50	Normal	LIFT	Not Seen	NA	NA
7	M	Kiwi	55-60	Normal	LIFT	Seen	Positive	STAIRS
8	F	Asian	30-35	Normal	LIFT	Seen	Positive	STAIRS
9	F	Kiwi	40-45	Overweight	LIFT	Seen	Ignored	LIFT
10	F	Kiwi	25-30	Normal	LIFT	Not Seen	NA	NA
11	F	Maori	45-50	Normal	LIFT	Not Seen	NA	NA
12	M	Maori	35-40	Normal	LIFT	Seen	Ignored	LIFT
13	F	Maori	30-35	Normal	LIFT	Seen	Ignored	LIFT
14	F	Maori	30-35	Normal	LIFT	Seen	Ignored	LIFT
15	F	Maori	25-30	Normal	LIFT	Seen	Ignored	LIFT
16	F	Maori	25-30	Normal	LIFT	Not Seen	NA	LIFT
17	M	Kiwi	50-55	Normal	LIFT	Seen	Ignored	LIFT
18	F	Kiwi	40-45	Overweight	LIFT	Seen	Ignored	LIFT