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Peloton as a Facilitator of Hope: Pathways to Initiate and Sustain Behaviors that Enhance Well-being

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Peloton as a Facilitator of Hope:

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Lisa R. Richardson

University of Pennsylvania

A Capstone Project Submitted

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Advisor: Gloria H. M. Park

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Keywords: peloton, hope, well-being, PERMA, hope theory, behavior change, sustained, positive psychology, performance psychology, motivation, positive emotion

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      This journey has been a long time coming and would not be possible without the many

individuals who have supported me in navigating the multiple pathways that have led me here.

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a pathway to help me flourish. From instructors that feel more like mentors to a community of

inspirational support, none of this would be possible without the space you have created to

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strengths. As I continue to learn and grow, I look forward to cultivating new pathways for

individuals and communities to unlock and unleash their full potential.

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Preface

"*This is the church of hustle and sweat,"* an instructor declares through my headphones as I turn the resistance up on my bike, wipe sweat from my dripping brow, and nod my head vigorously in complete agreement. I think to myself that I can do anything in this moment. I forget about the negative self-talk that I had been ruminating on after a tough meeting earlier in the day, and feel a weight lift off my shoulders as I get lost in the moment, with the music, the words of the instructor, and over 19,000 other people taking the same class. This is a Peloton cycling class, an at-home exercise bike that live-streams fitness classes to users around the world.

Before beginning my Peloton journey, my commitment to personal well-being was severely lacking. I prioritized long work hours and a high-stress job and found myself drained of the vital energy to care for myself. Integrating the Peloton experience into my life shifted my perspective in ways I could never have imagined; exercise became a priority in my daily routine, and a pathway to cultivating well-being.

As I have shared my experience with other Peloton users, I realize that my experience is not unique. Peloton users from different backgrounds, age groups and abilities reveal similar stories and trends – as one user reports, *"I often say that Peloton changed my life."* Whether talking with a family member who recently purchased a bike, a fellow Peloton rider with whom I engage through the platform, or an overheard conversation in a restaurant or airplane as individuals gush about their favorite Peloton instructor – it is clear that there is something unique about Peloton that draws users into this shared experience.

I came to the Master of Applied Positive Psychology Program (MAPP) at the University of Pennsylvania in 2019 to learn more about the science and application of well-being in

organizations, communities, and individuals. I was curious to understand why well-being was something that seemed to be so commonly acknowledged as a critical factor for success, yet it was so commonly dismissed and de-prioritized by individuals and communities in the pursuit of excellence.

As I began my journey in Positive Psychology, the study of applied research and science of well-being, I found myself relating each tangible example of research and theory to my experience with Peloton. Perhaps, my experience with Peloton held some of the answers that I had been seeking – could Peloton be a pathway for individuals and communities to prioritize well-being?

As one rider describes, "*When I first started riding, I hoped that the bike would offer me a good workout and be fun and that I would stick with it. Now, the bike has become a huge part of my life and my well-being, even my sanity. I think I would struggle more in my day to day life if I didn't have the bike to turn to blow off steam, feel positive, challenged, motivated and more like myself.*"

What is it about the Peloton experience that is cultivating this critical prioritization of well-being? The following exploratory study seeks to unpack the experience of Peloton users through the lens of positive psychology, identifying key experiential elements that initiate and sustain positive behavior change.

Introduction to Positive Psychology

Martin Seligman catalyzed the field of Positive Psychology as a call to action for Psychologists to shift from a focus of alleviating the suffering of individuals to studying the things that make life worth living – human flourishing (Seligman & Csikszentmihalyi, 2000). Seligman's (2011) PERMA framework identifies positive emotion, engagement, relationships,

meaning and achievement as the essential elements that cultivate human flourishing and well-being. As a framework, PERMA has been pivotal to the study of well-being by identifying and defining the essential elements that influence human flourishing.

To establish the effects and reliability of the PERMA framework, Butler and Kern's (2016) PERMA profiler measures individual levels of well-being through each of the PERMA domains. Behaviors associated with health and physical activity were not initially included in Seligman's PERMA framework. However, health measures are included in the PERMA profiler scale, demonstrating a moderate to strong correlation with each PERMA domain (Butler & Kern, 2016). Studies utilizing the PERMA profiler have advocated for the inclusion of Positive Health within the framework, shifting PERMA to PERMAH, citing the positive effect of sustained habits of physical activity in psychological outcomes and well-being (Lai et al., 2018). This is significant to signal that engaging in health related behaviors has a positive effect across domains of well-being.

Prior to Seligman's call for positive psychology and the development of PERMA, additional scales and frameworks exist to measure well-being. The Satisfaction with Life Scale (SWLS) measures subjective well-being, defined as an individual's overall satisfaction and evaluation of their emotional and life experiences (Diener et al., 2017). The SWLS, includes a 5-item assessment asking individuals to rate responses to questions pertaining to their overall satisfaction with life (Diener, Emmons, Larsen, & Griffin, 1985). In contrast to the PERMA framework, SWLS does not identify specific domains that contribute to well-being. For example, if an individual reports a low score on the SWLS scale, they do not have any increased awareness of what factors may be contributing negatively or positively to their subjective well-being. However, through the PERMA profiler, if an individual scores low in a particular domain,

such as relationships, they are able to respond through action to enhance their relationships as a pathway to increase their overall well-being. The PERMA framework and PERMA profiler, introduce a multi-dimensional approach to advance the study of positive psychology that supports individuals in cultivating pathways to enhance their well-being.

Additional multi-dimensional scales have been developed, positing that the five domains of PERMA do not incorporate the many elements that influence well-being throughout one's life. Su, Tay and Diener (2014) identify 18 domains of well-being through the Comprehensive Inventory of Thriving (CIT), including categories of relationships, engagement, mastery, autonomy, meaning, optimism, and subjective well-being. While CIT expands the multi-dimensional nature of well-being, it may be challenging for individuals to accurately assess and act in ways to cultivate well-being across such a broad range of domains. The PERMA framework has dramatically advanced the study of human flourishing by providing an accessible and understandable way for individuals and researchers to define, measure, and cultivate well-being.

Due to the correlation between PERMA and physical activity, as well as the accessible nature of the scale, the PERMA framework will be used as the baseline framework to discuss well-being throughout the study.

Positive Interventions

With the goal of positive psychology to promote well-being and human flourishing, positive psychology practitioners apply research through positive interventions (PI), tools, and activities that increase awareness of and experience of positive emotions in individuals (Pawelski, in press). Pawelski (in press) introduced a framework to identify and assess the foundational elements of PIs. In his analysis, Pawelski (in press) describes PIs as containing an

activity, an active ingredient, a target system, a target change, and a desired outcome. Pawelski (in press) argues that just as there is no one-size-fits-all wardrobe, PIs need to fit the dynamic needs and experiences of individuals. This is a significant development in the application of positive psychology as it creates a framework to analyze and to assess key experiential elements of PIs as drivers of well-being.

There are many examples of research-backed PIs that have positive effects on well-being. For example, The Three Blessings exercise prompts individuals to practice gratitude by reflecting on three good things experienced throughout the day (Seligman, Steen, Park, & Peterson, 2005). Research reveals that this PI may increase happiness and decreases depression symptoms for up to six months (Seligman et al., 2005). While the evidence and effect for this simple activity is clear, a google search for "gratitude exercises" returns over 30 million results. There is a strong demand for individuals who are seeking tools and strategies to adopt this simple practice. If we know that practicing gratitude is good for us, why are so many individuals still seeking strategies to adopt these behaviors? Similarly, many studies demonstrate the positive effects of physical exercise – yet data from the US Department of Health and Human Services (2017) reveals that less than 5% of adults in the US engage in 30 minutes of physical activity each day.

There has been significant progress from Seligman's initial call for the study of positive psychology. Through the PERMA framework and the development of PIs, practitioners now understand the elements that make life worth living and have access to implement and develop activities that cultivate positive emotion and human flourishing. However, there is a critical gap in the field to understand what brings people to adopt and utilize these interventions. To truly

advance the field of positive psychology as a pathway to human flourishing, we must understand what initiates positive behavior and what sustains it.

Philosophical Review

While the field of positive psychology has provided language and resources to advance the study of well-being, human flourishing has been studied by philosophers and psychologists for centuries. An analysis of philosophy reveals theory connecting the habits and behaviors of individuals to well-being.

Aristotle believed that living a life of virtue was the key to human flourishing and the good life (Melchert, 2002). Through this state, referred to as Eudaemonia, he hypothesizes that individuals are able to develop "practical wisdom" through habits and actions (Melchert, 2002, p. 194). He argues that wisdom is not innate, but instead that through action and experience, individuals can develop understanding and awareness of virtues. This knowledge allows individuals to know how and when to act in accordance with virtues throughout life (Melchert, 2002). Aristotle's focus on action reflects his belief that the good life is something that one can achieve, but that requires discipline, attention, and experience. These concepts reflect a core premise to Eudaemonia, and positive psychology, that well-being is cultivated through intentional action.

In alignment with Aristotle's thinking, William James declares habit to be the "flywheel of society" (1892/1984, p. 132). He philosophizes that action and habit create balance for individuals. James views action and habits as necessary training rituals to practice emotional response and regulation. He encourages individuals to continuously push themselves to act in new ways each day as to build fluency and action through experience; thereby, when the same scenario occurs in the future, there is familiarity and recognition (1892/1984). He connects this

process to the concept of neuroplasticity by describing the physical ways in which brain

development changes and adapts to new experiences (1892/1984). James expresses a belief in the

importance of action and routine in the cultivation of positive emotion and well-being.

James brings the concepts of emotion and action further together by reasoning that action and

feeling coexist (1899/1983).

In James' Talks to Teachers on Psychology, James introduces an intervention for

emotion, encouraging individuals to act in accordance with how they wish to feel. Action, or

behavior, is described as a tool to promote well-being. James also introduces self-control, stating

that one should focus on action, what they do, and how they may feel (1899/1983). The

resonating principles of action and self-control reflect an emerging theme for James; that

individuals can be agents of change in their emotional state.

Together, James and Aristotle highlight the belief that individuals can engage in

behaviors that maximize the human potential to build fulfilling lives. These theories have guided

the study of well-being, connecting the importance of human action and emotion.

Physical Activity and Well-Being

In relation to the current study's use of Peloton to identify pathways to initiate and

sustain behavior, it is essential to understand the connection between physical activity, well-

being, and motivation.

As Butler and Kern emphasize the importance of health in the study of well-being (2016),

Faulkner, Hefferon, and Mutrie (2015) introduce the importance of physical activity in the field

of positive psychology through somatopsychic interventions, activities that engage the mind and

the body. Research on somatopsychic interventions demonstrates a significant positive impact on

preventative health, therapeutic needs, enhancing quality of life, and supporting individuals to

feel good (Faulkner et al., 2015). Each of these components has the potential to increase positive

emotion and well-being in individuals. Through physical activity and exercise, individuals

experience positive emotion, feeling good, which can promote confidence to sustain engagement

in goal-related tasks (Faulkner et al., 2015). From this view, exercise can be a motivator to

increase well-being across many domains (Faulkner et al., 2015).

Physical Activity as a Positive Intervention

Hefferon and Mutrie (2012) suggest that physical activity is a form of a PI. Utilizing

Pawleski's (in press) framework, Physical activity, defined as movement of the body that

increases energy expenditure (Caspersen, Powell, & Christenson, 1985) and exercise, defined as

structured physical activity with the intention of increasing physical activity (Mutrie & Faulkner,

2004) are activities with clear target systems. Additionally, physical activity has target outcomes

such as, increases in mood, decreases in symptoms of anxiety and depression (Biddle & Asare,

2011), and reducing the rate of heart disease (Morris, Pollard, Everitt, Chave, & Semmmence,

1980).

While the benefits of physical activity may be known, a study conducted by Faulkner and

Biddle (2001) found that while most individuals have positive attitudes toward exercise as part of

a healthy lifestyle, individuals are unlikely to accept exercise as a treatment or medical

intervention. This finding suggests that while individuals are aware of the benefits of a physical

activity, they are unlikely to view exercise as a pathway to cultivate well-being.

Research in exercise psychology suggests that individuals commonly identify perceived

barriers as obstacles to initiating physical activity (Cherubini & Anshel, 2018; Nigg & Durrand,

2017). Physical, emotional, motivational, time, and availability are commonly referenced as

barriers to exercise (Biddle & Mutrie, 2007). Through the lens of positive psychology, Snyder's

Hope Theory (1994), supports the importance of overcoming barriers by focusing on goal-directed pathways.

By aligning positive psychology's research on PI with motivation and adherence research related to physical activity, new pathways may emerge to effectively initiate and sustain behaviors that promote well-being and positive emotion. The study of Peloton bike users has the potential to identify pathways to overcome perceived barriers and initiate physical activity and PIs that enhance well-being.

Motivation and Sustained Engagement

Individuals needs are not static; research suggests that over time individuals experience a shift in motivation. Prochaska and DiClemente (1983) identify stages of behavior change through the Transtheoretical Model (TTM). TTM posits that individuals experience six stages of change when actively initiating a behavior change, such a quitting smoking or changing addictive behaviors (Prochaska, Redding, & Evers, 2015). Maintenance is identified as the final stage of change, lasting from six months to five years (Prochaska et al., 2015). In this stage, individuals do not experience a full cycle of behavior change to actively stop and engage in new behaviors. However, they are actively trying to not revert to previous behaviors. Studies using TTM typically involve the active decision to stop a negative behavior (Prochaska et al., 2015). It is significant to consider the process of maintenance in the study of positive behavior changes and sustained engagement as it reflects the needs for sustained engagement within the process of change.

The Cons Scale measures perceived barriers to engage in a behavior (Nigg, Rossi, Norman, & Benisvocich, 1998). A study by Hall and Rossi (2008) reveals that as individuals begin to engage in physical activity, their perception of barriers shifts as positive associations to

the activity increase. Over time, individuals who sustain engagement see a decrease in cons,

negative thoughts associated with the behavior (Hall & Rossi, 2008). This research supports

Prochaska and DiClemente's (1983) TTM model of change, suggesting that an individual's

perception and motivation change from initial engagement to sustained engagement. Aligned

with Snyder's (1994) hope theory, individuals must cultivate new pathways to sustain motivation

and engagement.

As TTM (Prochaska & DiClemente, 1983) and hope theory (Snyder, 1994) reveal that

behavior change requires maintenance and sustained engagement, Bao and Lyubomirsky (2014)

explore how the concept of hedonic adaptation impacts the enduring effects of positive

interventions. Hedonic adaption occurs as individuals adjust to a new set of expectations after

experiencing a positive emotion, and consequently are less likely to experience positive emotions

thereafter, as they have adapted (Bao & Lyubomirsky, 2014). This is an important consideration

for sustaining engagement, as understanding how hedonic adaptation occurs can influence

behavior change models to yield more sustaining positive effects (Bao & Lyubomirsky, 2014).

Research suggests that positive interventions can be applied in ways that limit hedonic

adaptation by increasing the variety of activities, engaging with others to make actions more

sociable, practicing active appreciation, and adjusting expectations (Bao & Lyubomirsky, 2014).

Similar trends emerge in physical activity adherence, as fun and enjoyment, self-efficacy,

competence, and autonomy are identified as key levers for sustained engagement in adolescents

and children (Blom, Visek, & Harris, 2018). Studies in adult motivation and adherence to

physical activity also reflect a critical element of enjoyment (Nigg & Durrand, 2017). In

alignment with research on hope theory, enjoyment can be enhanced through autonomy, positive

feedback, and variety (Blom et al., 2018). These findings may be utilized to develop behavior

change models to limit hedonic adaptation and drive adherence and motivation.

It becomes clear that what motivates initial engagement in an activity, may not be enough

to drive sustained engagement. Bao & Lyubomirsky's (2014) research, along with findings for

exercise adherence and motivation (Blom et al., 2018; Hall & Rossi, 2008), closely aligns with

hope theory's (Snyder, 1994) focus on agentic goals and pathways. However, much of the

research methodology used to identify elements of motivation and behavior change utilize

control group studies, assigning individuals to specific interventions (Prochaska et al., 2015;

Snyder et al., 2003; Bao & Lyubomirsky, 2014). While these studies illuminate key insights for

motivation and engagement, they do not capture an authentic application of agentic motivation

and sustained engagement. Researchers have suggested the need to study the sustained

effectiveness of exercise in holistic and real-world settings (Lox, Martin, & Petruzzello, 2010).

Practitioners of positive psychology and exercise and performance psychology are both

driven to enhance well-being in individuals. Just as the study of positive psychology has shifted

the narrative to focus on what makes life worth living, the study of behavior change may also

require a shift to understand positive behavior change from a non-clinical perspective. To

motivate and engage individuals in the process of behavior change, it is essential to understand

the pathways that motivate individuals to initiate positive behaviors and sustain them. By

applying research on motivation and engagement to the Peloton experience, this study seeks to

identify trends in the user experience to illuminate pathways that enhance well-being, from

initiation and sustained engagement.

Introduction to Peloton

The Peloton is a home fitness exercise bike that connects users to virtual spin classes and a community of users through a digital app of live streaming and on-demand content. As the Peloton community has grown to attract millions of users, its popularity presents a unique opportunity to explore the user experience and the elements that support initiating and sustaining engagement as a pathway to positive behavior change.

Peloton as a Positive Intervention

Utilizing Pawelski's (in press) framework, the Peloton bike is a PI. Peloton is an activity-indoor cycling; has an active ingredient- physical activity; a target system- the mind and body; and a target change and outcome that varies by individual.

The Peloton model presents an opportunity to unpack and apply positive psychology research to understand the pathways that facilitate motivation and sustained engagement. A review of Peloton quarterly earnings reports reveals that the average Peloton user completed 17.7 workouts from January 1, 2020 to March 31, 2020 (Peloton, 2020). Additionally, Peloton (2020) reports a rate of 93% sustained engagement, representing the percent of users who are active subscribers and completing workouts through the Peloton platform. As illustrated in Figure 1, Peloton users demonstrate an increase in the average number of workouts completed from the date of purchase (Peloton, 2020).

Figure 1: Average use of Peloton users by quarter and year over year, Q3 (Peloton, 2020)

Average Monthly Workouts per Connected Fitness Subscriber

FY 2017A	FY 2018A	FY 2019A
7.5	8.4	11.5

Average Monthly Workouts per Connected Fitness Subscriber by Cohort

■ 2016 Cohort ■ 2017 Cohort
■ 2018 Cohort ■ 2019 Cohort

While the data reveals that Peloton is a strong model of sustained engagement, examining the features of the Peloton experience may reveal how users are obtaining these results. As Bao & Lyubomirsky (2014) emphasize the role of variety for adoption of PIs, the Peloton platform features a library of live and on-demand content that is updated daily with varied class length, multiple instructor personalities, music options, and diverse class content. While routine physical activity positively increases mood and well-being (Ransford & Palisi, 1996), it is clear that the features of the Peloton experience facilitate pathways to keep users engaged.

To unpack the Peloton experience as a PI, user testimonial may identify the essential components of the Peloton platform that support initial motivation and sustained engagement. Understating a real-world example of individuals engaged in physical activity routines may allow practitioners to identify pathways for positive behavior change, from initiation to sustained

engagement. This study brings together research focused on motivation and adherence to exercise, with research on PI and positive psychology to understand the cycle of motivation, initiation, and sustained engagement in the role of physical exercise, positive interventions, and behavior change.

Study Aims

Through a qualitative study and analysis of Peloton bike user testimonial, this study seeks to identify and explore the core experiential elements of the Peloton bike experience that motivate and sustain goal-related behaviors of individuals and communities. In alignment with Snyder's (1994) hope theory, the study hypothesizes that the use of a Peloton bike is an intentional activity driven by an agentic thought and an identified pathway. Further, an applied analysis of well-being through the PERMA framework may reveal connections to sustained motivation and well-being.

The data is analyzed with research from positive psychology, exercise, and performance psychology to identify trends among Peloton bike users' self-reported descriptions of their experience in relation to the development of goals and sustained goal-motivated behaviors. This study presents a novel opportunity for a real-time application of positive psychology, identifying the key mechanisms and features of the Peloton experience that motivate individuals to initiate and sustain goal-related behavior as a positive intervention.

In the face of the COVID-19 pandemic, the world is facing rapid change in how individuals and communities work, learn, and connect. By identifying the elements that engage and motivate users to sustain positive behaviors through the Peloton platform, organizations can leverage this insight to create virtual platforms that engage and sustain individual and community motivation. This research may also advance the field of positive psychology by

putting research into practice to illuminate a real-time example of motivation, initiation, and

sustained engagement of positive interventions.

Methods

The following study includes an analysis of 104 Peloton bike users who consented to

complete a qualitative survey on the Qualtrics platform. With approval from the University of

Pennsylvania's Institutional Review Board, participants were recruited through email and social

media postings on Facebook, Instagram, and LinkedIn. To recruit additional participants beyond

the lead researcher's immediate network, a snowball method was initiated (Atkinson & Flint,

2001), encouraging participants to share the survey with peers within their network. 104 total

surveys were completed during the data collection period.

The survey includes questions detailing the Peloton user experience, from the initial

motivation for the purchase, to key experiential elements of engagement and motivation, to

current goals, and identified motivators for use. Additionally, users self-reported their total

number of rides completed and their average weekly use of the bike. Mediators were surveyed,

ranging from how users select a class on the platform, user preference for live or on-demand

content, preferred instructors, use of features on the platform, and reported engagement within

the community. A full review of all survey questions can be found in the appendix (Appendix

A).

The initial data was cleaned to remove identifiable information, such as the participant's

name and email address, and each survey was assigned a random identifier for analysis. Each

survey was then reviewed to ensure qualification for the study, including that the participant

confirmed ownership of a Peloton bike and was over the age of 18. The data set was then

analyzed to identify the demographic trends of the sample (Appendix B).

Surveys were analyzed using Grounded Theory methodology, using a system of memos and codes to identifying similar trends in the data set (Strauss & Corbin, 1994). Initial analysis reviewed responses to the user's initial goals and motivation (Question 11 and 13) and user's current goals and top motivating factors for use (Question 29, 30, 31, 32). Survey responses were coded using memos to capture trends and assigned categories based on themes in the responses. Initial coding themes that emerged in responses focused on initial and current goals identified responses that reflected elements of hope theory (Snyder, 1994), including goals, agency, and pathways. Statements and responses identifying top motivating factors for purchase (Question 13) and continued use (Question 32) were then coded for the following themes; Convenience, Lifestyle, PERMA, COVID, and Health/Exercise, as described in Table 1. A full review of the coding methodology can be reviewed in Appendix C.

Table 1: Motivation Coding

Code	Defined
Hope	**Words associated with Hope:**
	Evidence of goal directed behavior.
PERMA	**Words associated with well-being:**
	Wellbeing, Fun, Community, Engagement, Happiness, Mental Health, Feel Good, Enjoyment, Positive, Stress Relief, Friends
Convenience	**Words associated with convenience:**
	Convenient, at home, flexibility, accessibility, ease, in home, adjustable, easy to access, efficient
Lifestyle	**Word associated with a life changing event:**
	Baby, pregnant, job, kids, aging, surgery, injury, busy lives, move, change in gym
COVID	**Words associated with COVID-19:**
	COVID, pandemic, shelter in place, stay at home order, confinement
Exercise	**Words associated with exercise:**
	Weight, shape, fitness, exercise, physical health, training, strength, cardio, workout, health, wellness, healthy

As trends in coding emerged, a word count methodology was used to identify frequency in words related to the PERMA well-being framework. A full list of words identified as being correlated to positive and negative elements of the PERMA framework (Schwartz et al., 2013), were used to identify themes of PERMA across responses. These words were used specifically to analyze individual responses to initial motivation and current motivation responses. The raw word count, categorized by PERMA domain, was used to compare responses to the coding themes that emerged in memos and coding practices. While the raw numbers, tables, and visualization (Appendix D) were helpful to identify trends, it was decided that the Grounded Theory methodology (Strauss & Corbin, 1994), using memos and assigned codes, was able to capture a more accurate context and description of responses. For example, phrases such as "calories burned" were identified as negative descriptions of engagement using word frequency methods. However, in context, these phrases were used as a motivating and positive reflection from survey participants. The overall word count did not allow for analysis of trends across individual users when analyzing initial motivation and sustained use.

For all users, the top motivating features of the Peloton experience were analyzed to identify trends in sustained engagement. An analysis of word frequency was used to identify top features across all respondents. Similarly, it was identified that coding using Grounded Theory memos provided more context to identify themes across respondents. Coding was used to identify trends in the top motivating features that users reported when using the Peloton bike. The following categories were formed: Instructor, Community, Metrics, Music, and Class Type. A full description of these codes can be found in Appendix C.

To account for sustained use, additional mediators were analyzed to compare coded responses in alignment with the frequency of use, calculated by identifying the date of purchase

and date of survey completion in alignment with the self-reported number of rides completed.

Each user was assigned a frequency of use number to indicate an average number of rides per

month. Categories of high use and low use were determined to compare sub-groups. High use

was identified as users with an average of 20 rides or more per month (n=33). Low use was

identified as users with an average of 10 rides or fewer per month (n=27). Responses to identify

the top motivators for engagement during a ride were coded to identify elements that promote

engagement. The top identified themes, described in Appendix C, were the Instructor,

Community, Music, Metrics, and Class Type. To unpack themes within each motivational

category, additional analysis was completed to identify trends in reported engagement with

community (Question 22 and 23), preference for live or on-demand rides (Question 18 and 19)

instructor motivation (Question 20 and 21) and use of metrics for engagement (Question 17). No

additional follow up interviews were completed for this study.

Analysis

Demographics

The survey (n=104) included 25 individuals who self-identified as male, and 78

individuals who self-identified as female. Respondents represented the following race and

ethnicity categories White (n=97), Asian (n=1), African American or Black (n=1), Other (n=4)

and White, other (n=1). Peloton has not shared demographic data to reveal if this data set is

reflective of the broader Peloton community.

Tenure of bike ownership is a relevant data trend for the analysis as identifying elements

of sustained engagement is a key research question for the study. Respondents varied in their

length of ownership of the Peloton bike, from less than one month (n=2) to 63 months (n=1). 49

respondents reported having the bike for 0 to11 months, 23 respondents reported having the bike

for 13 to 23 months, and 32 respondents reported having the bike for over 24 months. One

respondent reported an invalid date and was removed from any analysis involving the frequency

of use analysis. Additionally, individuals having the bike for less than one month were not

included in the analysis using frequency of use comparisons.

Findings in Hope

Snyder's hope theory posits that defined goals, identified pathways, and agentic thought

are the essential components to initiating and sustaining motivation (Magyar-Moe & Lopez,

2015). Studies reflect that individuals with high hope, those with clearly defined goals,

pathways, and agentic thought experience greater well-being and are more likely to persevere

through challenges and setbacks in the pursuit of a goal (Snyder, 1994). This finding suggests

that hope may present a connection between motivation and sustained engagement in activities

that cultivate well-being.

Hope theory researchers theorize that the role of agentic thought and pathways becomes

additive and reciprocal, such that they are essential to the pursuit and motivation of goal-related

behaviors (Snyder, Lopez, Shorey, Rand, & Feldman, 2003). In the study of behavior change,

hope theory's emphasis on pathways or plans to meet goals (Snyder, 1994) provides insight into

motivation that initiates and sustains positive behavior change.

The initial hypothesis of the study posits that Peloton is a pathway to goal-related

behavior. As described by Charles Snyder (1994), hope theory is relevant to this model, focusing

on agentic goals and clear pathways. Research reveals connections to hope and sustained

engagements, as high hope individuals are successful in initiating goal motivated behavior and

overcoming setbacks (Magyar-Moe & Lopez, 2015). Peloton was identified as a potential

exemplar of hope theory, as the initial motivation to a bike represents an agentic action and

pathway. To measure if this initial hypothesis was valid individual responses were analyzed to identify the presence of hope through the question 10, *"In 3-4 sentences, please describe your initial goal and motivation when you purchased your Peloton bike."*

98 out of 104 survey responses reflected hope, as identified through goals, agency, and pathways. This finding supports the hypothesis that the Peloton experience represents an example of hope theory, as most individuals reflect agentic and goal motivated action, identifying the bike and the Peloton platform as a pathway to engage in goal-related behavior. This finding is significant as it validates the continued exploration of the Peloton experience as an example of hope. A key question in the study is not only what brings individuals to the bike as an initial pathway, but also, what keeps individuals coming back. Further analysis of the Peloton experience is necessary to unpack the Peloton platform's features and experiences that facilitate pathways to sustained engagement.

> *"To get back in shape after very little exercise since the birth of my son almost 4 years prior. I wanted to lose weight and tone up, as well as improve my energy level and overall mental well-being. I did not have time for a gym membership between work and caring for my son, so this was my best alternative."*

Findings in Initial Motivation

To explore hope and pathways of engagement within the Peloton experience, it is important to understand the initial motivation of individual users. 81 out of 104 users identify Convenience as a top motivator to purchase the Peloton bike. Additional responses cite Exercise/Health (45), PERMA (38), and COVID (2) as top motivators. Table 2 provides an overview of the top identified themes for the initial purchase of a Peloton.

Table 2: Top 3 Initial Motivators by Individual – Containing at least one response
Question #13 In rank order, list and describe the top three factors that influenced you to purchase a Peloton bike. (1 being the most important)

Code	Individuals (n=104)
Convenience	81
PERMA	38
Exercise/Health	45
COVID	2

Through the applied lens of hope theory, these findings reveal that Convenience is a primary driver for pathways thinking and goal motivated behavior related to exercise and health. This data supports research in exercise motivation citing perceived barriers as obstacles to initiate behavior change (Biddle & Mutrie, 2007). The emphasis on Convenience may suggest that accessible and flexible pathways are key factors for initiating goal-related behavior. While a desire for improved well-being, as represented by PERMA and Exercise/Health, is a factor for motivation, it is not as strong of a factor as the pathway focused on Convenience and access. This finding may suggest that one's desire to improve health and well-being is not enough to initiate behavior change; access to a convenient and accessible pathway is necessary for engagement.

Respondents also mentioned themes associated with lifestyle changes that may be related to pathways thinking. Themes in this category included changing jobs, long working hours, pregnancy, young children, and closing gyms as initial reasons to identify new pathways. This trend may also suggest that individuals in this category demonstrate the characteristics of high hope individuals (Magyar-Moe & Lopez, 2015), identifying new pathways in the face of challenges and changing circumstances. Responses that mention COVID-19 also connect to this theme, as individuals reported a desire to access routines and sustained engagement in the face of stay at home orders and closed gyms.

This finding suggests that accessible and convenient pathways are critical components for initiating positive behavior.

> *"At first my motivation was to have a great source of cardio in my home which would allow me to balance my full time job and stay close to my young children. I had spent years waking up at 5:30AM to go to the gym. The thought of eliminating the commute to the gym and being able to workout when my schedule allowed pushed me to invest in the bike."*

Findings in Current Motivation

As previously discussed, research on PIs (Bao & Lyubomirsky, 2014), and exercise adherence and motivation theory reveal that motivation is not static (Hall & Rossi, 2008). As stated in the initial research question, understanding what changes in motivation to bring people back to the bike is key.

As a first step, it felt necessary to analyze if individuals report a change in motivation. Surprisingly, 71 out of 104 users, reported "no", their initial motivation had not changed (Question 30). While this response was initially disappointing, further analysis of written responses reveal that users are "more motivated" or "just as motivated" as they were at the start. This response illuminates the need to explore the pathways of the Peloton experience further. While individuals may have similar goals, there is a noted shift in motivation.

> *"I am motivated and doing more workouts than I had planned".*

To explore how motivation may be changing in individuals, responses and trends from the top initial motivators (Table 2), were compared to responses and trends in top current motivators (Table 3). While 81 out of 104 users reported an initial response to Convenience, only 19 respondents identified Convenience as a motivator for continued use. However, an increase was observed in PERMA and Exercise/Health as motivators for current use, 79 out of 104

respondents identified exercise and health as top motivators, while 72 out of 104 respondents

identified elements related to PERMA. To identify change in motivation, Table 4 provides a

comparison of initial and current motivation.

Table 3: Top 3 Current Motivators by Individual – Containing at least one response
Question #32 In rank order, list and describe the top three factors that motivate you to use your Peloton bike. (1 being the most important)

Code	Individuals (n=104)
Convenience	19
PERMA	72
Exercise/Health	79
COVID	0

Table 4: Change in Motivators from Current to Initial
Comparing the difference in responses to Questions #13 and #32

Code	Initial (n=104)	Current (n=104)
Convenience	81	19
PERMA	38	72
Exercise/Health	45	79
COVID	2	0

The increase in PERMA and Exercise and Health related responses suggest that while

well-being may not be a pathway for initiating behavior, it emerges as a motivating factor for

sustaining engagement. This finding may suggest that pathways for engagement shift over time.

So, while Convenience is a key driver to initiate a behavior, PERMA emerges as a pathway for

sustained behavior change.

Word frequency analysis of current motivators and initial motivators reveals trends in the

specific domains of PERMA, including an increase in words associated with Positive Emotion,

Engagement, and Achievement. The observed increases in PERMA support findings and

research connecting the role of emotion in performance (McCarthy, 2011) and upward spirals

(Fredrickson, 2001). Performance Psychology suggests that positive emotions may enhance and

motivate performance, while emotion that is perceived as being negative or unpleasant may

hinder performance (Hanin, 2000). It is important to note that additional studies posit that

negative emotions such as anxiety may increase motivation and competition in performance

(Raglin & Hanin, 2000). While both positive and negative emotions may influence behavior

change and performance, for the purpose of this non-clinical study of positive behavior change,

the role of positive emotion as a motivator is examined.

Fredrickson (2001) identifies positive emotions as an essential element to increase an

individual's capacity to build resilience, creativity, and overall well-being (Fredrickson, 2001).

Fredrickson (2009) identifies this cycle as the broaden and build theory, as the experience of

positive emotions can open one's perspective and increase positive resonance over time.

Research suggests that as individuals engage in activities that increase positive affect, such as

physical activity, the upward spiral of increased positive emotion may be a critical factor in

sustaining behavior (Van Cappellen, Rice, Catalino, & Fredrickson, 2018). The data and research

suggest a shift in pathways thinking, from a focus on Convenience to positive emotion and well-

being.

These findings, along with supporting research, suggest that while well-being may not be

a core driver to initiate behavior, the experience of positive emotion is an essential driver for

sustained engagement.

> *"My initial motivation was simply to workout more - now I see it as a part of my day - it's not "I have to work out", it has evolved to being a natural part of my week. I make sure to plan time for it not because I have to, but because I want to provide myself with the opportunity and the gift to ride. Robin Arzon said something in one of her classes that always sticks with me "someone, somewhere would do anything to switch places with you on your worst day. So ride for those who can't and build up your community around you." On days when I am feeling down or stressed out, I come back to that. It's a privilege to be able to exercise, to move and to have this opportunity and I am lucky to take advantage of it. It's amazing the way my initial thought of working out more changed to a way of life."*

Synchronous vs. Asynchronous Engagement

Building on positive emotion research, Fredrickson (2001) posits that shared, in-person experiences are critical to enhancing the experience of positive emotion. Given that the Peloton experience connects users to both live and on-demand classes, exploring users' experience in these different settings may reveal trends for sustained engagement.

The Peloton platform allows users to connect with other users through live classes, taking the ride in real-time as it streams from a studio location, or on-demand, taking the ride as a streamed recording. Both of these experiences include visuals of other riders who are either in the location when the ride is filmed, or in real-time on a leaderboard to view the performance of others compared to oneself throughout a class.

70 out of 104 respondents prefer to take On-Demand rides, pre-recorded classes, rather than Live classes, 34 out of 104. Further analysis (Table 5) reveals that there are no significant ride-use trends based on individual preferences for Live or On-Demand rides.

Table 5: Live or On-Demand by Use

Question #18 Do you prefer to complete Peloton rides that are Live or On-Demand?

Code	High Use ≥ 20 per month (n = 33)	Low Use ≤ 10 per month (n =27)
Live	15 out of 33	6 out of 27
On-Demand	18 out of 33	21 out of 27

Individual preferences for live and on-demand classes reveal that elements of PERMA may be experienced synchronously in live classes and asynchronously in on-demand classes. Responses were coded to identify trends in user responses to describe their preference for Live rides (Table 6) and On-Demand rides (Table 7). Respondents describe shared experience, and themes of togetherness in live rides, revealing a theme of connection. On-Demand riders describe similar elements of connection, reflecting the importance of having "more people to compare to" and the ability to "see my friends' performance." Fredrickson's (2013) theory of

positive resonance, shared moments of connection and behavioral synchrony, emphasizes the

importance of in-person connections to enhance positive emotion and well-being. However, the

Peloton experience reveals the potential to build motivation and well-being synchronously and

asynchronously.

Table 6: Top Themes for Live Rides

For those who identified a preference for Live Rides (Question #18)
Question #19 Please describe your preference for live or on demand rides. What are the characteristics that make you prefer one over the other?

Code	Words Used
Connection	*"real time" "shared community" "community" "riding with friends" "special connection" "part of something" "shared experience" "feeling of being in class with everyone" "riding along with others" "in the moment" "instructor connection" "celebrations" "together" "working at the same time" "shout outs" "together with friends"*
Energy	*"class and music is a surprise" "excitement" "exhilaration" "new and exciting" "energy of instructor" "more fun"*
Motivation	*"pushes me" "more attention" "more competitive" "head to head competition" "motivated in real time"*

Table 7: Top Themes for On Demand Ride

For those who identified a preference for On-Demand Rides (Question #18)
Question #19 Please describe your preference for live or on demand rides. What are the characteristics that make you prefer one over the other?

Code	Words Used
Convenience	*"fit it in" "available" "priority is time of day" "schedule" "fill my needs" "convenience" "flexibility" "work schedule" "don't sacrifice my routine"*
Variety	*"difficulty ratings" "music" "more options" "instructor" "length"*
Metrics	*"metrics are updated" "closed captions" "more people to compare" "can see friends performance" "parameters set"*

Analysis of the data reveals that the ability to exercise choice and to build connection

synchronously and asynchronously may be key drivers facilitating pathways to enhanced well-

being. Through the Peloton platform, individuals can exercise agency in determining the type of

ride they will take. Users can also continuously access pathways that are convenient and foster

connection and support synchronously and asynchronously. This key feature highlights how the

Peloton platform facilitates hope, providing multiple pathways to sustain behaviors that enhance well-being.

Facilitating Hope: Analysis of Top Motivating Features

The following section analyzes the top three motivating themes of instructors, metrics, and music - exploring themes of hope through synchronous and asynchronous features of the Peloton platform that facilitate pathways of agency and connection to sustain behavior. Table 8 provides an overview of the top identified motivating features of the Peloton experience.

Table 8: Top Motivators During a Ride
Question #16 During a ride, list and describe the top three features of the Peloton bike platform that motivate you. (1 being the most important)

Code	**Individuals (n=104)**
Instructor	77
Metrics	67
Music	60
Community	29
Class Type	21

Instructor

> *"Her energy is high but not annoyingly so. She has a great smile and seems warm. She talks about her own experience in life and makes me feel like it's ok to think "this is hard"...makes me feel like if I keep at it, I will improve and it won't feel so daunting. I would describe her as "real" and genuine and accepting - like whoever you are and wherever you are with your fitness level and your body, it's ok and you are great."*

Instructors emerge as the most common motivator for individuals throughout a Peloton class. The Peloton platform features class content from 23 cycling instructors who vary in their persona and teaching style. Users can prioritize instructors when navigating the Peloton platform to select on-demand class content and review the live class schedule. In many ways, instructors have become celebrity like features of the Peloton community. For users who visit Peloton studios in person, it is common to see riders line up after classes to snap a photo with their

favorite instructor and to share a brief moment of gratitude and connection. It was not surprising

to see this feature emerge as a top motivator – but understanding why this was a strong motivator

and how it was something that resonated across many users connects to the key research

questions of sustained engagement.

When asked to describe how instructors motivate individuals, phrases such as "positive,"

"uplifting," and "relatable" were used. Research supports this finding, as instructors who use less

controlling and negative language to motivate participants have been found to promote more

motivation in exercise classes (Ntoumanis, Thøgersen-Ntoumani, Quested, & Hancox, 2017).

Further, when instructors use supportive language to increase motivation and interpersonal

engagement, they are more likely to engage in future classes (Ntoumanis et al., 2017). This

finding suggests a continued theme of connection and support as a key motivator for

performance and sustained engagement.

The current study did not analyze trends among instructor preferences. However, as most

responses identify the instructor as a top motivator, the data suggests that the variety and choice

of instructors meet the needs of diverse user preferences. The ability for individuals to select

instructors that meet their personal preferences through the platform sustains a pathway of

agency and choice. Users can also access support, connection, and motivation from instructors in

both live and on-demand classes, supporting the theme of synchronous and asynchronous

engagement.

Analysis of the current study and research on motivation connects instructors to the

emerging framework of synchronous and asynchronous agency and connection as key motivators

for sustained engagement.

Metrics

> *"I find that looking at the metrics encourage me to push myself further than I would even consider doing if I couldn't SEE the data. Without it, I wouldn't even KNOW how I was doing - my only reference point would be how I "feel", not what I can SEE. I can push a little harder and actually feel and see just how much further I can go and for how long".*

Metrics on the Peloton platform refer to visual indicators of performance that users can customize based on their individual preferences. For the survey, respondents were prompted to consider the following metrics: output-a measure of overall performance, resistance, cadence, heart rate, and the leaderboard-which ranks real-time results of individuals taking a particular class based on output. While instructors may use various metrics throughout a class for direction, each metric can be hidden by a user at any point during a ride. The leaderboard, a popular feature to compare user performance through synchronous and asynchronous engagement, can also be customized to meet the unique needs and preferences of an individual. Users can choose to see the performance of all users in a class as it takes place or, for on-demand content, a historical leaderboard includes all users who have taken the class as if it was occurring in real-time. The feature may also be customized to include a selected group of people that an individual "follows", participants by age and gender, as well as community sub-groups. These features reflect an opportunity for individuals to self-identify goals and to receive instant feedback to signal how an individual performs in alignment with their identified goals.

67 out of 104 respondents identified Metrics as one of the top features for motivation during a ride. When describing how metrics influence performance, respondents mentioned goals such as competition, achieving personal records, keeping up with the instructor, keeping up with friends, and maintaining heart rate zones as ways to utilize the metrics on the platform. This finding connects to the word analysis identifying an increase in PERMA levels of engagement

and achievement. Individuals have the opportunity to set unique goals and monitor their

performance simultaneously.

Research reveals that positive performance feedback supports the development of

intrinsically motivated goals and behavior (Deci & Ryan, 1985). Brown and Ryan (2015)

demonstrate that intrinsic and autonomously motivated behavior is correlated to greater well-

being, creativity, and overall performance. They label this level of motivation, "Intrinsic

Motivation" (Brown & Ryan, 2015, p. 141), which is defined as actions or behaviors that are

self-motivated and done-willingly. In alignment with hope theory and the emerging framework

of the study, metrics on the Peloton platform facilitate synchronous and asynchronous pathways

to goal-directed behavior that reflect agency, choice, and connection.

Music

> *"If the music doesn't motivate me then I'm out!"*

Music emerges as a top motivator on the Peloton platform. It is not surprising to see music

emerge as a motivating feature as studies have identified music as a key motivational element in

exercise, identifying positive effects to increase effort and duration of a workout (Priest &

Karageorghis, 2008). However, exploring this feature through the lens of synchronous and

asynchronous agency and connection may reveal how music as a feature of the Peloton platform

drives sustained engagement.

Many users report music, or the class playlist, as being an element of variety that helps

them select a ride. For on-demand, or asynchronous content, many users revealed that looking at

the playlist of a class helps to select which class to take. Music may also have synchronous

effects, as studies reveal the physiological responses to motivation and engagement when

listening to music. Research reveals that music may help shift focus and attention away from

effort while exercising, while the tempo of a song may increase the intensity of performance.

(Razon, Hutchinson, & Basevitch, 2017). Studies also reveal that particularly motivational lyrics

may provide meaning and inspiration for engagement in exercise (Priest & Karegeorghis, 2012).

These findings connect to the role of PERMA, providing a pathway to engagement and positive

emotions.

As the data suggest, music plays an essential role in motivating individuals during a

Peloton class that can be facilitated synchronously and asynchronously. Additionally, the Peloton

platform utilizes music to cultivate agency as users select classes based on music and build

connections of support as music may drive engagement, meaning, and purpose during a ride.

Community

> *"I value feeling like part of a community, and the support we have for one another".*

While community was not one of the top features of motivation during a Peloton ride, 81

out of 104 respondents report engaging with other community members. Understanding the role

of community may reveal trends in how synchronous and asynchronous connection facilitates

pathways back to the bike.

Individuals describe engagement with the community in the categories of high fives,

social media, to connect with friends and family, in-person meet-ups and following other users

on the platform. Each of these categories reflects concepts of relatedness in Self-Determination

Theory, emphasizing the importance of support and acceptance from social connections as a

motivator (Brown & Ryan 2015; Teixeira, Carraça, Markland, Silva, & Ryan, 2012). This

illuminates the Peloton platform's importance as a facilitator to synchronous and asynchronous

pathways for connection and support.

While the feature of high-fives and following friends on the leaderboard can be activated synchronously during live rides, 3 out of the 5 themes extend asynchronously, beyond the Peloton platform interface. Connecting with friends and instructors using social media, discussing rides with friends and family, and meeting other Peloton riders at Peloton meet-ups all occur asynchronously, away from the bike. Through these features, users also demonstrate agency with the continued ability to customize engagement with the Peloton community. Table 9 provides an overview of the top themes identified for community engagement.

The theme of connection emerges as a pathway to sustained engagement that can be facilitated during a ride, as well as asynchronously beyond the platform. It was surprising that an increase in Positive Relationships was not seen in the word count analysis of PERMA based on the emphasis of connection and support of community. However, this finding may reveal that connection is a pathway to engagement within the PERMA model. Further studies may wish to explore this relationship further.

Table 9: Top Themes Identified for Community Engagement
For those who responded "Yes" (Question 22)
Question #23 "If yes, in 2-3 sentences describe which methods of communication bring you the most motivation."

Code	Total Mentions
High Fives: *Feature of bike to encourage real time engagement and support during a ride*	40
Social Media: *Engaging in interest specific groups, connecting with other riders and instructors who were not part of social network prior to purchasing*	41
Connect with Friends and Family: *Discussing rides and arranging rides together with people in immediate social network*	29
In Person Meet Up: *Engaging in the community through Peloton events*	5
Following: *Connecting to follow riders with similar output or class preferences*	5

Discussion

Theoretical Application

While the current study examines the Peloton bike experience, the findings of what

sustains this behavior present a framework for facilitating positive behavior change that may be

applied across domains. The following section describes the proposed framework and presents

areas for future direction. Figure 2 defines the components of the proposed framework.

Figure 2 Sustained Engagement Framework - Overview		
Pathway	**Agency** *Autonomous Choice and Variety*	**Connection** *Positive Reinforcement and engagement with others*
Synchronous PERMA *Features that increase positive emotion, engagement and achievement in the moment.*	Collective experiences that are tied to a specific intervention or activity that can be enhanced or curated to meet the needs of the individual.	Collective experiences that are tied to a specific intervention or activity that foster connection and positive reinforcement from others in the moment.
Asynchronous PERMA *Features that increase positive emotion, engagement and achievement outside of the actual experience.*	Experiences that occur outside of a specific intervention or activity, that that can be enhanced or curated to meet the needs of the individual.	Experiences that occur outside of a specific intervention or activity, that foster connection and positive reinforcement from others beyond the moment.

Initiating: Pathways of Convenience

The study illuminates that convenience is a necessary driver for initiating a behavior.

This finding aligns with hope theory (Snyder, 1994), emphasizing agentic goals and a pathway of

convenience as a key driver.

For the application of positive psychology and PIs this suggests that emphasizing the

benefits of an activity may not be as motivating as identifying how and when an individual can

engage in an activity. This may explain why individuals still struggle to engage in activities that

enhance well-being, as pathways of convenience have not been at the core of research and

motivation on PIs and physical activity.

Synchronous and Asynchronous Pathways. Research and trends within the study reveal that motivation for initiating a behavior differs from pathways to sustain engagement. Previous research emphasizes the importance of in-person and shared activities to enhance positive emotion and well-being (Fredrickson, 2001). As individuals experience a shift in motivation to focus on well-being as defined by PERMA, the Peloton platform demonstrates that pathways can be cultivated synchronously and asynchronously.

Users report synchronous experiences that motivate engagement and enhance well-being that are shared within a specific class or moment. For example, the users report that the music, metrics, and instructor's motivation are critical factors to influence motivation synchronously during a ride. However, additional features, such as connecting with community members, emerge as key drivers to motivate and bring users back to the bike in an asynchronous manner. These features support users in sustaining engagement and motivation synchronously, during a ride and asynchronously, extending beyond the in-the-moment experience of a ride.

This is significant for the application of PIs as increased attention and awareness to the effect of an activity in-the-moment, and beyond, may cultivate pathways to sustained engagement. As our world shifts to embrace technology and remote engagement, this finding may be relevant across many domains.

Sustaining: Pathways of Agency and Connection

The study reveals that individuals require agency and connection to cultivate sustained pathways of engagement. An example of how these components contribute to the Peloton user experience is outlined in Figure 3. It is theorized that the combination of these effects contribute to an experience of enhanced well-being that brings users back to the bike.

Figure 3: Sustained Engagement Framework – Peloton Example

Pathway	Agency *Autonomous Choice and Variety*	Connection *Positive Reinforcement and engagement with others*
Synchronous PERMA *Features that increase positive emotion, engagement and achievement in the moment.*	During a ride, features can be curated by the individual user to enhance agency: - Metrics – the display on the peloton platform may be customized to meet individual goals and preferences.	During a ride, specific experiences can cultivate connection: - Instructor language - Music lyrics and tempo - Community connection – high-fives, following friends on the leaderboard
Asynchronous PERMA *Features that increase positive emotion, engagement and achievement outside of the actual experience.*	Outside of the ride itself, experiences can be curated by the individual user to enhance agency: - Ride Selection – can curate your ride experience based on your music preferences, difficulty level, instructor preferences.	Outside of the ride itself, specific experiences can cultivate connection: - Engaging with community – friends and family to discuss a ride, social media, meeting fellow riders in person

Practical Application

While the Peloton framework emerges as a facilitator of hope – initiating and sustaining pathways for well-being, existing research in positive psychology may be implemented to cultivate pathways of synchronous and asynchronous agency and connection across domains. This section aims to demonstrate how the proposed model and applied positive psychology research may extend into dynamics in the workplace to engage communities and individuals to sustain engagement in activities that promote well-being. Figure 4 illustrates how existing positive psychology research may advance the application of this framework.

Figure 4: Sustained Engagement Framework – Positive Psychology Interventions

Pathway	Agency	Connection
	Autonomous Choice and Variety	*Positive Reinforcement and engagement with others*
Synchronous PERMA *Features that increase positive emotion, engagement and achievement in the moment.*	Character Strengths Savoring	High Quality Connections Savoring
Asynchronous PERMA *Features that increase positive emotion, engagement and achievement outside of the actual experience.*	Character Strengths Savoring	Active Constructive Responding

Initiating: Pathways of Convenience

For the application of PIs and positive behavior change, the research suggests that emphasizing the expected benefits of an activity may not be as motivating as identifying how and when an individual can engage in an activity.

For Peloton, convenience is met through a platform in the user's home that can be accessed at any time through live and on-demand content. Applying this finding to maximize convenience across domains may include workplaces integrating resources and experiences into the workday, as well as ensuring that resources are available in asynchronous formats so that employees may engage at a time that is convenient and flexible to their individual needs. As the future of work continues to integrate remote work from home positions and policies, it is important to ensure that engagement opportunities maximize convenience for both work and home related functions.

Convenience may also be influenced by peer behavior and observation. Research supports this finding, suggesting that individuals' behavior is influenced by the observation of peers (Paluck, Shepherd, & Aronow, 2016). Individuals with strong social networks, social referents (SRs), signal socially normative behavior in groups (Paluck et al., 2016). The use of

SRs may be applied to the proposed pathways model as a pathway for convenience. If individuals see others engaged in PIs that they can seem themselves engaging in, they may be more likely to identify pathways to initiate behavior.

According to Peloton (2020), 49% of Peloton purchases in FY2020 were the result of a referral from friends and family members. Many Peloton users in the study also report friends as being an initial motivator for purchasing the bike. In particular, one user reported, "*I had also seen others have success on the bike and felt like I could achieve the same.*" These examples support SR research, and can be replicated by organizations or coaches supporting individuals by sharing stories and examples of individuals who are engaging in the target behavior. To facilitate pathways of convenience, SR stories should focus on the pathway to initiate their journey. By addressing the specific barriers of how and when, SRs may be able to facilitate pathways to initiate positive behavior. This is also significant in the shift to dispersed and remote work environments. Finding opportunities to celebrate and share narratives that demonstrate how an individual achieved a result may help drive connection and inspiration.

Future studies may wish to explore the use of SRs and social networks to influence behavior engagement. The Peloton platform and its connected user experience present a unique opportunity to analyze social networks as facilitators of positive behavior change.

Character Strengths. In pursuit of establishing a common language for the field of Positive Psychology, Chris Peterson and Martin Seligman developed a classification and assessment to identify character strengths (Peterson, 2006). Through their analyses, character strengths can be developed and nurtured through interventions, experiences, and context (Peterson, 2006). The VIA Character Strengths inventory includes 24 unique strengths and allows individuals to identify their top strengths, referred to as signature strengths (Niemiec,

2018). Research focused on the development and use of signature strengths has demonstrated a

significant increase in well-being (Niemiec & McGrath, 2019). When using strengths,

individuals feel energized, effortless, and engaged to sustain the behavior (Niemiec, 2018).

Engagement has been identified as a core factor in promoting well-being, as described by Martin

Seligman's (2011) PERMA model. Leveraging strengths may be a lever to motivate pathways

that individuals.

In alignment with the Peloton experience, individuals can use character strengths by

customizing ride preferences and experiences in unique ways. The strength of gratitude,

celebrating and appreciating others, can be activated by giving high-fives and celebrating fellow

riders. Persistence, the pursuit of a goal, can be leveraged to increase resistance or increase the

length of a class through varied difficulty and ride lengths. Humor can be used to motivate riders

through instructor engaging and unique personalities across a diversity of instructors. By tapping

into strengths, riders are able to curate an experience that meets their unique strengths in a way

that builds motivation and sustained engagement with the platform.

Character Strengths may be used across domains to drive agency in the pursuit of positive

behavior change. As a first step, individuals and organizations can identify their strengths using

the VIA Character Strengths Assessment. Increasing one's awareness of their strengths has the

potential to facilitate synchronous and asynchronous pathways to agency. Future studies may

also wish to explore the use of these strengths within the Peloton platform to identify how

various features and experiences can be customized to facilitate engagement among individual

users.

Savoring. The act of savoring, the intentional awareness and experience of positive

emotions, can increase engagement and meaning (Bryant, 2003). Savoring can occur through

reminiscing to look back at past events with fondness, in the moment, or looking towards the future in anticipation (Bryant, 2003). Across each temporal domain, the ability to deepen awareness of positive emotion and gratitude increases well-being (Bryant, 2003). Savoring may also present an opportunity for individuals to sustain and motivate behaviors and experiences.

Through the Peloton platform, individuals have the opportunity to savor across each temporal domain. With anticipation, individuals may pre-plan classes based on favorite instructors, time of day, and ride type. Individuals are also encouraged to track their goals and achievements to plan rides in celebration of symbolic milestones, birthdays and achievements. Instructors encourage and validate these moments of savoring through personalized recognition in live rides. In the moment, individuals can savor these moments of celebration as they engage with others to experience a sense of transcendence and collective effervescence, feeling connected to the larger community (Haidt, 2012). Through Peloton's digital platform, all rides are recorded and stored in a library of on-demand content allowing special moments to be savored and celebrated by users. Through these key features of the Peloton platform, savoring is a mechanism for synchronous and asynchronous connection.

Savoring can be applied across domains synchronously and asynchronously through reflection prompts in coaching and development conversations, or a culture that celebrates and values key milestones. Savoring opportunities may facilitate pathways to connection and agency.

High Quality Connections (HQC). Dutton (2003) describes High Quality Connections (HQCs) as life giving moments of mutuality and positive regard. Research reveals that HQCs increase physiological health, creativity, and resilience (Dutton, 2003). As supported by the Peloton study, connection is a key theme for sustained engagement. Research on HQC's may support individuals and organizations in facilitating pathways of connection. HQC's can be

enhanced through trusting relationships, task enabling, play, and respectful engagement (Stephens, Heaphy, & Dutton, 2011).

Organizations and individuals may implement activities virtually or in-person to enhance HQC. These include team building games and activities, communicating trust and belief in one's potential, or collaborating on a shared project. By enhancing trust, play, task enabling, and respectful engagement, HQC's may emerge as a pathway to sustain engagement.

Active Constructive Responding (ACR). A top theme for Peloton user motivation is the positive support of the instructor. Research on Active Constructive Responding (ACR) reveals that how individuals respond to the good news of others has the potential to amplify positive emotion and increase life satisfaction and positive affect (Gable, Gonzaga, & Strachman, 2006). Utilizing the tool of ACR in organizations and coaching relationships may facilitate pathways for synchronous and asynchronous connection across domains.

ACR can be facilitated through training and modeling to encourage individuals to capitalize on responses when sharing good news (Gable et al., 2006). For example, when a coworker or friend shares excitement around a new promotion, responding positively and asking open ended questions amplifies positive emotion and connection. ACR may be facilitated in person, as well as through digital platforms, to celebrate and recognize individuals. ACR has the potential to be a facilitator of synchronous and asynchronous connection.

Future Direction

Through this exploratory study, Peloton emerges as a facilitator of multiple pathways to support users in initiating and sustaining behavior change. Peloton currently integrates many quantitative data points throughout the user experience. After each completed ride, users have the opportunity to rate the class playlist, instructor, metrics, quality, and class difficulty. This

data, along with performance metrics, user demographics, and overall class completion rates, can

be used to recommend content to users based on their unique preferences. While it is unknown

what research Peloton may be conducting in this domain, the inclusion of qualitative data, as

presented throughout the current study, provides essential insight to illuminate individual

preferences and factors for motivation. The Peloton platform presents a unique opportunity to

integrate positive psychology research to advance and scale the study of well-being and

sustained engagement. Perhaps future studies may be able to utilize the Peloton platform to build

a user experience that enhances particular PERMA domains to facilitate human flourishing.

Limitations

The findings in this study are merely suggestive of a new framework for sustained

positive behavior change. The study is limited to self-report survey respondents who own a

Peloton bike. While it was not a pre-requisite to have a positive experience with the bike, the

survey may favor respondents who have experienced success with the platform. The study does

not include individuals who may have purchased a bike with negative or unsuccessful

experiences. Additionally, no follow up interviews were conducted with the survey to confirm

the findings and analysis. It is worth noting that physical activity has many positive

physiological effects that may drive sustained engagement beyond the Peloton platform's

interface. While the current study utilized qualitative data to identify changes in well-being,

future studies may wish to measure the effects of PERMA directly, randomly assigning users to

complete the PERMA profiler (Butler & Kern, 2016) within the Peloton platform. Additional

studies may also wish to implement the proposed framework and the PERMA scale across

domains to limit the effect of physical activity as a potential driver of sustained engagement.

Conclusion

Practitioners of positive psychology have advanced the study of well-being, identifying frameworks, scales, and research backed positive interventions that enhance and cultivate well-being. However, individuals and communities struggle to adopt habits and routines that promote human flourishing. Peloton emerges as a facilitator of pathways that enables individuals to initiate and sustain activities that promote well-being. Using the proposed framework and the application of positive psychology, individuals and organizations have the tools to facilitate pathways for sustained positive behavior change.

This study has implications for moving positive psychology research and theory into practice across domains. Identifying pathways of convenience can support individuals to initiate desired behaviors. Positive psychology research focused on leveraging strengths, savoring, high quality connections, and active constructive responding may present unique opportunities to facilitate synchronous and asynchronous pathways of agency and connection.

In the words of Peloton instructor Robin Arzon, and as the data in the study reflects, *"One ride will make your day better. Many rides, if you keep coming back, will make your life better."* If the field of positive psychology seeks to advance human flourishing, additional mixed-method, non-clinical studies are necessary to further our understanding of what draws people in to adopt behaviors and what keeps them coming back. This study is the first step in identifying a framework to unlock positive behavior change for good.

Appendices

Appendix A: Survey Question(s)

Part I: Basic Information
1. Enter your first and last name
2. Enter your email address
3. Please re-enter your email address
4. Do you own a Peloton Bike? Yes/No
5. Date of Birth Year and Month (to confirm 18+)
6. Are you of Hispanic, Latino or of Spanish origin? Yes/No
7. How do you describe your ethnicity (may choose multiple responses)?
8. What is your gender?

Part II: Peloton Purchase - Initial Goals and Habits
1. When did you purchase your Peloton Bike? MM/YY
2. In 3-4 sentences, please describe your initial goal and motivation when you purchased your Peloton bike.
3. Prior to purchasing your Peloton bike, how many days per week were you engaging in physical exercise? If applicable, please describe any specific exercise activities and routines.
4. In rank order, list and describe the top three factors that influenced you to purchase a Peloton bike. (1 being the most important)

Part III: Peloton Experience
1. How many Peloton rides have you completed?
2. Imagine you just turned on your Peloton bike…walk me through your process for planning and selecting which Peloton ride you will complete.
3. During a ride, list and describe the top three features of the Peloton bike platform that motivate you. (1 being the most important)
4. During a ride, how do metrics (output, resistance, cadence, heart rate, leaderboard) on the Peloton bike impact your performance?
5. Do you prefer to complete Peloton rides that are live or on demand?
6. Please describe your preference for live or on demand rides. What are the characteristics that make you prefer one over the other?
7. In rank order, which three instructors do you ride with most frequently? (1 being the most frequent)
8. Describe the motivating behaviors and qualities of the instructor you ride with most frequently.
9. Do you engage with other members of the Peloton community? Y/N
10. If yes, in 2-3 sentences describe which methods of communication bring you the most motivation.
11. Are you aware of Peloton achievement badges (Special Events, Milestones, Personal Best, Daily Streaks, Social, or Challenges)? Y/N

12. If yes, describe how Peloton achievement badges (Special Events, Milestones, Personal Best, Daily Streaks, Social, or Challenges) influence your riding habits and routines.

Part IV: Current Goals and Habits
1. How many days per week do you engage with your Peloton bike?
2. Aside from Peloton cycling classes, describe any additional exercise activities you currently engage in.
3. Do you participate in additional exercise activities through the Peloton digital app? Y/N
4. In 3-4 sentences, please describe your current goal or motivation to use your Peloton bike?
5. Has your initial goal or motivation changed from when you first purchased your Peloton bike? Y/N
6. Share more about your response to the previous question - what has or has not changed about your initial goals?
7. In rank order, list and describe the top three factors that motivate you to use your Peloton bike. (1 being the most important)

Part V: Current Context:
1. Have recent events related to COVID-19 and social distancing measures changed your use of your Peloton bike? Yes/No
2. If yes, please describe how your Peloton bike use has changed in response to COVID-19 and social distancing measures.

Part V: Thank You and Follow Up
1. Are you willing to be contacted by the lead researcher for additional follow up? Yes/No

Appendix B: Demographics

Total Respondents	Gender	Race and Ethnicity
n = 104	Male = 25 Female = 78	White = 97 Asian = 1 African American or Black = 1 Other = 4 White, Other =1

Appendix C: Coding Tables

Code to Identify Initial and Current Motivators

Code	Defined
Hope	**Words associated with Hope:** *Evidence of goal directed behavior.*
PERMA	**Words associated with well-being:** *Wellbeing, Fun, Community, Engagement, Happiness, Mental Health, Feel Good, Enjoyment, Positive, Stress Relief, Friends*
Convenience	**Words associated with convenience:** *Convenient, at home, flexibility, accessibility, ease, in home, adjustable, easy to access, efficient*
Lifestyle	**Word associated with a life changing event:** *Baby, pregnant, job, kids, aging, surgery, injury, busy lives, move, change in gym*
COVID	**Words associated with COVID-19:** *COVID, pandemic, shelter in place, stay at home order, confinement*
Exercise	**Words associated with exercise:** *Weight, shape, fitness, exercise, physical health, training, strength, cardio, workout, health, wellness, healthy*

Code to Identify Features for Motivation

Code	Defined
Instructor	**Words associated with Instructor:**
	Instructors, coaches, motivation from instructor, teacher
Community	**Words associated with community:**
	Community, friends, high 5's, seeing how many other people are on the ride, connected to others
Metrics	**Words associated with Metrics**
	Leaderboard, output, PR, heart rate, beating myself, beating friends, resistance, cadence, power zone, competing
Music	**Word associated with a music:**
	Music, playlist, songs
Class Type	**Words associated with Class Type:**
	HITT, Tabtata, Class Type, new content, variety of classes, groove

Appendix D: Word Frequency Data Tables and Visualization

Top 50 Words for Initial Motivation   **Top 50 Words for Current Motivation**

Raw Word Count of PERMA in Initial Motivation V Current Motivation

Initial - Questions 10 and 12, Current – Questions 30 and 31

Category	Initial	Current
P+	25	30
P-	3	5
E+	17	42
E-	1	2
R+	97	28
R-	25	30
M+	58	35
M-	0	0
A+	9	16
A-	2	1

Top 50 Words to Describe Instructors

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