Walden University

College of Management and Technology

This is to certify that the doctoral study by

Jaclyn Hartwell

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Walden University
2020

Abstract

Relationship Between Project Changes, Project Objectives, and Employee Engagement

by

Jaclyn Hartwell

MBA, Thomas College, 2015

BS, Thomas College, 2014

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

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Abstract

Lack of employee engagement is detrimental to the success of organizations across industries. Project managers will see a negative impact on project success if they do not focus on engaging their team members throughout the project life cycle. Grounded in House's path-goal theory, the purpose of this quantitative correlational study was to examine the relationship between project changes, project objectives, and employee engagement. Data were collected using SurveyMonkey to gather online survey responses from 76 project managers working in Indiana. The results of the standard multiple linear regression analysis indicated the full model was not statistically significant in distinguishing the relationship between project changes, project objectives, and employee engagement, with $F(2, 73) = 1.127$, $p = .330$, $R^2 = .030$. A key recommendation is for project managers to discuss leadership styles in the project planning process to prioritize employee engagement within the project team. The implications for positive social change include the potential to help project managers and leaders understand the importance of employee engagement and wellbeing, improve project success with regards to social change projects, and improve employee relationships in local communities.

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Dedication

I dedicate this study to my mother, father, and brother. They taught me the value of hard work and determination and ensured I never gave up on myself. I also dedicate this study to my friends who encouraged me throughout my entire journey; NC, CJ, EN, JH, and JM. I would not be where I am today without your help, love, and endless laughter. You all inspire me to be my best self every day.

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Section 1: Foundation of the Study

Engaged employees are a critical factor in achieving success in a competitive marketplace (Chin, Lok, & Kong, 2019). Employees search for commitment and support from management and opportunities for growth and development, which lead to their engagement within an organization (Loerzel, 2019). Employees are more likely to become engaged when they understand their role within the organization (Moletsane, Tefera, & Migiro, 2019). However, there is a growing trend of disengagement within American organizations (Nor, Arokiasamy, & Balaraman, 2019). The objective of this study was to investigate the relationship between project changes, project objectives, and employee engagement.

Background of the Problem

To achieve success in projects, it is essential employees share information and work together (Butt, Naaranoia, & Savolainen, 2016). Project leaders often fail due to problems in communication, motivation, and employee engagement (Rumeser & Emsley, 2018). Employee engagement and satisfaction is critical to business excellence and project success (Haffer & Haffer, 2015). Engaged employees may lead to an increase in customer satisfaction and improved organizational financial results (Haffer & Haffer, 2015). Seymour and Geldenhuys (2018) stated engaged employees are more responsive to changes and willing to perform demanding work. Disengaged employees are more likely to have increased stress levels, higher turnover intentions, and impact workplace safety (Jugdev, Mather, & Cook, 2018). Organizational leaders still report decreasing levels of employee engagement (Meintjes & Hofmeyr, 2018).

A key process at the beginning of a project is defining the scope, objectives, and stakeholders; failing to define the scope or objectives of the project can lead to a potential gap in needed skills and resources for the project (Rumeser & Emsley, 2018). Leaders must understand project objectives and potential changes or obstacles to maintain employee engagement (Penn & Thomas, 2017). Project leaders should understand relationships between project changes, project objectives, and employee engagement to recognize the impact a project has on employees.

Problem Statement

Changes to projects have a direct impact on employee stress and engagement (Butt et al., 2016). According to Jugdev et al. (2018), 50% to 70% of employees will become disengaged at their workplace due to workplace stress from ambiguous project roles. The general business problem was that some project leaders are unable to predict changing engagement levels of their employees. The specific business problem was that some project managers do not understand the relationship between project changes, project objectives, and employee engagement.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship between project changes, project objectives, and employee engagement. The independent variables were project changes and project objectives. The dependent variable was employee engagement. The targeted population consisted of project managers working in the Fort Wayne, Indiana area. The implications for positive social change included the potential for project leaders to keep employees informed of project

objectives and changes, which may cause higher employee engagement. Higher employee engagement may contribute to the prosperity of employees, their families, the organization, and the community, as well as a better work-life balance for employees.

Nature of the Study

The method of this study was quantitative. Quantitative researchers use statistical analysis to examine relationships between variables and work with unambiguous observable data (Haegele & Hodge, 2015). Quantitative research was appropriate for this study because I tested a theory to examine if a relationship exists between variables. Qualitative studies are used by researchers to subjectively study the meaning of data (M. N. K. Saunders, Lewis, & Thornhill, 2015). Mixed methods research involves the use of both qualitative and quantitative research for a deeper understanding of the data (Alavi, Archibald, McMaster, Lopez, & Cleary, 2018). Qualitative and mixed methods research approaches were not appropriate because the purpose of the study was not to subjectively study the data.

The design of the quantitative study was correlational. Researchers use correlational designs to find the extent to which variables are related (M. N. K. Saunders et al., 2015). A correlational design was appropriate for determining the relationship between the predictor and dependent variables; therefore, it was appropriate for my study. Researchers use experimental and quasi-experimental designs when they wish to manipulate predictor variables to find the effect on the dependent variable (Lacruz & Americo, 2018). It was not my intention to identify cause and effect relationships, nor to

manipulate the data; therefore, experimental and quasi-experimental designs were not appropriate.

Research Question

RQ: What is the relationship between project changes, project objectives, and employee engagement?

Hypotheses

Null hypothesis (H_0)*:* There is no statistically significant relationship between project changes, project objectives, and employee engagement.

Alternative hypothesis *(H_1):* There is a statistically significant relationship between project changes, project objectives, and employee engagement.

Theoretical Framework

House (1971) created the path-goal theory as an explanation for how leaders can use structure to motivate followers to achieve established goals. Leaders who use the path-goal theory see an improved relationship between themselves, followers, and tasks, and there is an increase in follower motivation due to rewards for accomplishing goals (Bickle, 2017). Leaders also choose their leadership style based on the needs of the followers to keep them engaged and help achieve their objectives (Northouse, 2016).

House (1996) said that leaders are effective only to the extent they can engage followers to achieve their goals. Leaders who use the path-goal theory define objectives, clarify paths, remove obstacles, and provide support and motivation (Bickle, 2017). I selected project changes as a predictor variable based on the steps in the path-goal theory for a leader to remove obstacles, and I selected project objectives as a predictor variable

based on the steps in the path-goal theory for the leader to define objectives and clarify paths.

Operational Definitions

This section will assist the reader in understanding terms as used in this doctoral study. The intent is to identify and define terms that have different meanings in different industries. All terms as defined came from scholarly resources.

Employee disengagement: Disengaged employees are less loyal to employers, not interested in their jobs, and no longer efficient in their work (Aslam, Muqadas, Imran, & Rahman, 2018).

Employee engagement: Engaged employees enjoy their work and have confidence in their competencies, and when they feel a dedication to organization employees, feel a heightened sense of ownership regarding their work (Jena, Pradhan, & Panigrahy, 2018).

Project management: The process of creating a unique product or service with a specified start and end dates to give a quantifiable deliverable to a customer (Abyad, 2018).

Project success: The completion of a project on time, within a specified budget, resulting in customer satisfaction (Ahmed & Abdullahi, 2017).

Assumptions, Limitations, and Delimitations

Assumptions

Researchers make assumptions in research; researchers do not verify these truths within a study (Simmons, 2018). In this study, I assumed that participants answered questionnaires truthfully and honestly. Second, I assumed the population I surveyed

provided the information necessary to contribute to research of the defined variables. Third, I assumed the theoretical framework of the path-goal theory was adequate to base my research.

Limitations

Limitations are potential weaknesses in a study (Yin, 2014). Researchers must accept that these limitations are outside of their control (Simmons, 2018). A limitation of this study was that participants worked within a specific field in a limited geographic location. The restriction of participants also reduced the potential to generalize the results of the study. Another limitation of this study involved voluntary participation, which allowed participants to withdraw from the study at any time. If participants withdrew from the study, it could reduce the accuracy of representation of the population of project managers in Fort Wayne, Indiana.

Delimitations

Delimitations are boundaries set by the researcher to control the study's size and scope (Simmons, 2018). The first delimitation was the use of surveys to collect data. The study was limited to respondents who were project team members working within set geographical boundaries. Another delimitation of this research was the constraint of time that wasestablished to gather data; limited time to collect data reduced the scope of the study.

Significance of the Study

The results of this study may assist business leaders in contributing positively to the organization and surrounding communities. Leaders may use the findings to develop

a better understanding of the relationship if any between project changes, project objectives, and employee engagement on project teams. Leaders may then structure project teams in a manner that enhances employee engagement to reach their project objectives.

Contribution to Business Practice

Project leaders face many challenges in managing employee engagement, while still delivering expected project objectives (Jugdev et al., 2018). Organizational resources are not always adequately allocated to projects, and therefore reduce the knowledge of the impact project changes and project objectives have on employee engagement (Lappi & Aaltonen, 2017).

This correlational study was designed to determine how and to what extent project changes and project objectives affect levels of employee engagement. Data collected as a part of this study may help project leaders in improving the success rate of project teams by determining the impact of strategy choices on a project. Findings may increase employee engagement, while also improving the workflow of project teams. The results of this study may enable project leaders to use communication strategies designed to control these predictor variables to enhance employee performance.

Implications for Social Change

Increasing employee engagement in project teams may have a positive impact on social change. Improved employee engagement has the potential to positively impact employees' social interactions, personal health, and overall wellbeing. Employees who are emotionally engaged in their work are more likely to create an emotional bond and

identify with the mission of the organization (Alagaraja & Shuck, 2015). If leaders create an emotional bond with employees and the community, they could then look to increase social responsibility efforts.

A Review of the Professional and Academic Literature

The purpose of this quantitative correlational study was to examine the relationship between project changes, project objectives, and employee engagement. The independent variables were project changes and project objectives. The dependent variable was employee engagement. The targeted population consisted of project managers working in Fort Wayne, Indiana. The null hypothesis of this study was as follows: There is no statistically significant relationship among project changes, project objectives, and employee engagement.

In this section, I reviewed the existing literature regarding the path-goal theory, which is the theoretical framework of this study, as well as transformational leadership and transactional leadership. I also reviewed relevant literature on project management, project success, project changes, project objectives, and employee engagement. Within the literature, there was consensus regarding the impact of employee engagement on project teams and to project success, but little in regards to a relationship between project changes, project objectives, and employee engagement.

I searched the following databases to find relevant literature for this literature review: ProQuest Dissertations & Theses at Walden University, ABI/INFORM Collection, Business Source Complete, Emerald Insight, SAGE Journals, Science Direct, and Google Scholar. I focused my search on peer-reviewed articles published within the

last five years. My parameters for my search *path-goal theory*, *leadership*, *employee engagement*, *work engagement*, *project management*, *project changes*, *project success*, *transformational leadership*, *transactional leadership*, *agile project management*, *decision making*, and *risk management*. The research in this literature review includes 95 sources (87% published within the 5 years), of which four sources are books and 90 are journal articles (87% are peer-reviewed) as shown in Table 1.

Table 1

Outline of Literature Review Resources

Reference type	Less than 5 years	More than 5 years	Total
Books	4	0	4
Journal articles	77	13	90
Dissertations	1	0	1
Total	82	13	95

Leadership Theories

Path-goal theory. I chose the path-goal theory created by House as the theoretical framework for this study. House (1971) created the path-goal theory to explain how leaders can motivate their followers to achieve their desired goals. More specifically, House believed leaders could motivate their employees to behave in a particular manner based on their expectation of the specific outcome that would occur. House and Mitchell (1974) explained the origin of the path-goal theory involves the expectancy theory, which focuses on the assumption that an individual's attitude is predictable based on the outcomes of expected behaviors. If an employee expects a reward for accomplishing specific goals, then he or she will find the motivation to

achieve goals and satisfaction in terms of receiving the expected reward (House & Mitchell, 1974).

To achieve high levels of motivation and ultimately satisfying and engaging the employee, a path-goal theory leader clarifies the path toward objectives for employees while removing obstacles and providing support and encouragement (Bickle, 2017). Leaders using the path-goal theory should tailor their leadership style to fit the needs of employees (House & Mitchell, 1974). The most common leadership behaviors used according to the path-goal theorywere directive, supportive, participative, and achievement-oriented (Northouse, 2016).

All leadership styles have a purpose and are beneficial in terms of certain aspects of employee management. Those who use directive leadership want to provide guidance and structure to their employees; they do so by giving details, context, and direction where needed (Northouse, 2016). Those who use supportive leadership styles provide repetitious tasks to build confidence and motivation in employees (Bickle, 2017). Participative leaders focus on consulting employees in decision making and task planning; therefore, all employees have control regarding their objectives (House & Mitchell, 1974). Achievement-oriented leaders challenge their employees to excel by setting high expectations and providing complex tasks (Malik, 2013).

With the path-goal theory, it is crucial leaders are flexible in terms of the needs of their team and successful when the team is motivated and positively influenced (Hayyat, 2012). Directive leadership is useful in creating an open communication environment for employees and productively resolving conflicts, whereas participative leadership is

valuable for promoting creativity among employees (Bickle, 2017). It is possible for leaders to use more than just the directive, supportive, participative, and achievement-oriented styles; they can practice other leadership styles along with the path-goal theory.

Leaders who use the path-goal theory predict the needs of their followers and align the chosen leadership style to those needs (Northouse, 2016). Also, leaders alter their styles based on the types of tasks their followers must perform. The purpose of the restructuring is to assist followers in overcoming obstacles by utilizing the most appropriate choice of leadership style (Northouse, 2016). House (1996) recognized the importance of leaders filling the missing piece in followers environments to help followers compensate for lack of training or abilities. To further support the need for flexibility, House included four additional leadership behaviors, work facilitation, group-oriented decision process, work-group representation, and value-based leadership. These new leadership behaviors came from the recognition of deficiencies in the past four behaviors.

Domingues, Vieira, and Agnihotri (2017) said leaders can use transaction and transformational styles while using the path-goal theory. Those who use transactional leadership focus on initiating structure in complex work processes through a combination of directive and supportive styles. Leaders who use transformational leadership look to clarify the goals and values of the team; therefore, employees gain motivation from working in an environment consistent with their values (Domingues et al., 2017).

Project leaders can tailor their style to create a learning environment, improving the project performance within their organization. By establishing objectives, clearing

obstacles, and providing support, project leaders can encourage and motivate employees to focus on growth and development (Farhan, 2018). Employees will see benefits in terms of following the established path, due to the clarity provided by the leader in their objectives and rewards (Kiarie, Maru, & Cheruiyot, 2017). Leaders who understand the needs and characteristics of their employees will better choose the most appropriate style (T. Zhang, Avery, Bergsteiner, & More, 2014).

Since the first creation of the path-goal theory, many researchers were skeptical of the ability of leaders to generate meaningful predictions of motivation (Schriesheim & DeNisi, 1981). Many also argued the theory lacks support from strong empirical evidence (Dessler & Valenzi, 1977). Dessler and Valenzi (1977) discussed three prior studies where the data collected did not support the use of the path-goal theory as a way to predict motivation, and their study did not support the path-goal theory hypothesis. Schriesheim and DeNisi (1981) disagreed with these criticisms due to the tendency of researchers to only test a small portion of the motivation predictors. They studied the two most popular hypothesis and found strong support for the use of the path-goal theory in predicting follower motivation (Schriesheim & DeNisi, 1981).

Use of the path-goal theory by project leaders may bring accountability to not only themselves but also their team (Landrum & Daily, 2012). Bringing clarity and transparency in terms of goals keeps employees responsible and engaged. Leaders may also improve employee performance and increase satisfaction by changing the path as needed when removing obstacles (Malik, 2013).

Transformational leadership theory. Many researchers consider transformational leadership to be one of the most effective leadership styles due to the focus on employees emotional and motivating behaviors (Iqbal, Long, Fei, & Bukhari, 2015). Leaders who use transformational leadership concentrate on aligning followers' needs to the organization's strategic goals, and can positively change followers' values, perceptions, and expectations (Tyssen, Wald, & Spieth, 2014). Similarly to leaders who use the path-goal theory, transformational leaders focus on people and their motivations to provide them with the vision to achieve their goals (Tyssen et al., 2014).

Transformational leadership theory was created by Burns (1978) to show the important relationship between leaders and followers. The focus of transformational leaders is to engage with their followers, be attentive to their needs, and assist their followers in reaching their fullest potential (Northouse, 2016). Transformational leaders also look to transform their followers to exceed goals and promote innovation and adaptability in team environments (Tabassi, Roufechaei, Abu Baker, & Yusof, 2017).

Though transformational leaders can improve project success (Tabassi et al., 2017), this is not the right theoretical framework for this study. L. Zhang, Cao, and Wang (2018) advised transformational leaders to stimulate employees to find new perspectives when problem-solving and focus on individual growth. In project environments, the risk of complexity and uncertainty can be high, which impacts the working environment of the team. It is essential that project leaders guide their teams to work within set guidelines in defined governance to achieve project success (Ljungblom & Lennerfors, 2018). Leaders who use the path-goal theory primarily still motivate their employees, but they

also clarify the path employees must take (Bickle, 2017). The focus on clarifying the desired path of employees reduces ambiguity in terms of job roles and expectations, but still provides focus on individual growth (Farhan, 2018). Project leaders may also use transformational styles within the confines of the path-goal theory to achieve the same intrinsic motivation while still following the path necessary to achieve project success (Domingues et al., 2017).

Transactional leadership theory. Burns created the transactional leadership theory in 1978 in conjunction with transformational leadership theory. Transactional leaders exchange things of value with their followers to achieve results (Northouse, 2016). Similarly to leaders who use the path-goal theory, transactional leaders focus on employees tasks and end objectives (Tyssen et al., 2014). Transactional leaders look to promote compliance among employees and maintain stability through punishment and rewards (Appelbaum, Degbe, MacDonald, & Nguyen-Quang, 2015; Lai, Hsu, & Li, 2018). To achieve compliance, leaders useutilize an exchange of resources between followers to fill their needs to achieve their goals; they use two types of styles to achieve this: contingent reward and management-by-exception (Lai et al., 2018).

Transactional leaders reinforce employee behavior through contingent rewards (Appelbaum et al., 2015). Lai et al. (2018) advised leaders who use contingent rewards concentrate on exchanging resources over everything. Rewards and recognition are provided only when the employee completes a task successfully (Lai et al., 2018). Another characteristic of transactional leadership is setting expectations for employees to meet (Appelbaum et al., 2015). Transactional leaders who use management-by-exception

approaches focus on punishing employees for mistakes or ineffective performance; they intervene only after set standards have not been met (Lai et al., 2018).

Successful transactional leadership is contingent on followers believing they will only obtain a reward after meeting set expectations (Lai et al., 2018). Though transactional leadership is important to bring clarity to roles and responsibilities, it is not the right theoretical framework for this study. Leaders who use transactional methods do not prioritize the needs of their followers or the personal development of their followers (Northouse, 2016). The style of leadership is only influential when the employee or follower wants what the leader is promising. In project environments, it is essential to promote individual growth, learning, and development to combat uncertainty (Böhle, Heidling, & Schoper, 2016). In project environments, teams are more likely to create innovative solutions to problems when they have the freedom to make decisions outside of their existing knowledge (Floricel, Michela, & Piperca, 2016).

Project Management

Project management involves using knowledge, skills, and tools to meet organizational project requirements (Project Management Institute, 2017). Abyad (2018) defined project management as the process of creating a unique process or service that has a specified start and end date to deliver a quantifiable result to a customer. Project managers work within the guidelines of organizational leaders to achieve organizational objectives (Levin & Wyzalek, 2015). They are responsible for directing project teams and applying techniques to achieve project success.

Project management processes will continue to evolve as organizations change and business leaders adapt their practices to incorporate changes (Choudhury & Uddin, 2018). In current organizations, projects are becoming more complex due to changes in project environments and the growing levels of uncertainty (Burström & Wilson, 2016), and project managers are in a critical situation in which they must adjust their project management practices to address these complex project issues (Ackermann & Alexander, 2016). Sohi, Hertogh, Bosch-Rekveldt, and Blom (2016) argued the evolution of projects are causing traditional management methods to no longer be effective.

Traditionally, project managers look to reduce complexity and uncertainty in projects with risk management, though to embrace the evolution of project management, some project managers are beginning to see complexity and uncertainty as opportunities for improvements within the project (Johansen, Eik-Andresen, Landmark, Ekambaram, & Rolstadås, 2016). Similarly, some project managers are beginning to use IT project management methods, like agile, in non-IT industries to improve project performance. Serrador and Pinto (2015) found agile project management methodologies have an impact on efficiency in terms of projects, even if used outside of the IT industry.

Though many project managers are trying new methods or adapting old methods to new processes, they are only capable of working within the scope defined in the project governance (Levin & Wyzalek, 2015). Successful project governance brings clarity to team roles, effective decision-making processes, information transparency, reductions in risk, and freedom for project managers to make innovative decisions (Levin & Wyzalek, 2015; Too & Weaver, 2014). Restrictive project governance reduces the

effectiveness of adapting to the constantly changing project environment. When project governance is established to fit the specific needs of individual projects, it ensures flexibility and adaptability (Galvao, Abadia, Parizzotto, De Castro Souze, & De Carvalho, 2017). By establishing sound governance and allowing flexibility, project managers can use the risk management tools needed to improve the management of uncertainty and complexity to maximize project efficiency and success (Scarozza, Rotundi, & Hinna, 2018).

Project Success

The purpose of project teams is to support project managers while working towards achieving defined objectives (Project Management Institute, 2017). Ultimately, project managers use their knowledge and skills to direct the team to achieve project success. Abyad (2018) defined project success as the ability to complete a project within a defined scope, time, and cost framework. Drury-Grogan (2014) classified the concepts of scope, time, and cost as the golden triangle. Khan and Rasheed (2015) classified the definition of project success under two categories: project success and project management success. Project success is the result of achieving strategic targets or objects, and project management success involves achieving those objectives in terms of the golden triangle (Khan & Rasheed, 2015).

Supporting the golden triangle concept, Ahmed and Abdullahi (2017) included customer satisfaction in their definition of project success, along with staying within the project scope and budget. To understand project success, Hughes, Rana, and Simintiras (2017) studied project failure. Hughes et al. found success is dependent on a complete

understanding of project change and project management throughout the team. Project managers who are adaptable to changes are more likely to refocus the project in terms of objectives when complexity or uncertainty arises (Hughes et al., 2017).

Another impact on project success is the type of leadership style used by the project manager. Raziq, Borini, Malik, Ahmad, and Shabaz (2018) found project success is defined not only by the golden triangle, but also by customer acceptance, stakeholder satisfaction, and future project opportunities. Raziq et al. saw project managers leadership styles as a direct impact in all categories of project success. Kharat and Naik (2018) concluded a lack of communication in project settings is a key barrier to the success of the project. Project managers who encourage communication and innovative thinking engage their employees and improve their ability to believe success in projects is achievable (Lianto et al., 2018).

Project Changes

In project environments, especially those with a lack of clarity in governance and confusion in team roles, project changes could result in a negative impact on the project and an increase in risk (McGrath & Whitty, 2015). Project managers have the responsibility to apply risk management methods within the project, to reduce the negative impact of risks and changes, and to keep the project team aligned to their goals (Dalcher, 2014). Risk management on project teams is crucial to adapting to changes and achieving project objectives. Project risks have the potential to be either positive or negative, but typically create uncertainty on project teams (de Araujo Lima & Verbano, 2019).

Project managers are expected to reduce the potential for risks to alter the project or interfere with reaching the project objectives, but encountering risks requires the project team to be adaptable to unknown changes within the project structure. Willumsen, Oehmen, Stingl, and Geraldi (2019) defined risk management processes in project teams as value protection. They encouraged formalized project risk management processes to create open communication and transparency in exposing risks, which enhances decision making in the event of project changes (Willumsen et al., 2019). Typically, project leaders attempt to mitigate the impact of risks on a project by continually defining the project objectives and identifying all areas of uncertainty (de Araujo Lima & Verbano, 2019). By addressing risks in all phases of the project, initiation, planning, execution, monitoring and control, and closure, project managers reduce the potential for unexpected changes due to unknown risks (de Araujo Lima & Verbano, 2019).

It is impossible for project managers to eliminate risk from the project environment (Dalcher, 2014). Though managers cannot eliminate risk, they need to understand the most common reasons for changes to occur: customer request, an innovative idea that betters the project, or changes to the project team structure (Vuorinen & Martinsuo, 2019). Johansen et al. (2016) recommended project managers learn how to adapt to situations that cause risks, like project changes, project complexity, and project uncertainty, and use them as growth and development opportunities to benefit the project team and project objectives.

To learn to grow from project changes, project managers should recognize how the project team responds to project changes, and what types of changes are occurring.

Steghofer (2017) noted it is more common for project team members to resist changes than to accept them. Often team member resistance is not even conscious but is visible in their behavior, such as not participating within the team or delaying their time to make decisions (Steghofer, 2017). Muluneh and Gedifew (2018) advised there are two main types of changes in projects: adaptive changes and technical changes. Technical changes or problems are easy to identify and easy to solve with expert knowledge, but adaptive changes present a greater challenge (Muluneh & Gedifew, 2018). Adaptive changes are difficult to solve and require project managers alter their approach to project work or utilize new thinking to create an effective solution. Typically, project managers that face adaptive changes look to update their knowledge of change management theories to find an appropriate solution (Muluneh & Gedifew, 2018).

Steghofer (2017) advised change management theories provide insights into the motivations of individuals to participate in change. Leaders who use change management approaches typically focus on the different reasons for changes to occur, and then find tactics to address the changes (Vuorinen & Martinsuo, 2019). Creasey and Taylor (2014) identified seven top contributors to successful change management methods, three of which are communication, employee engagement, and integration with project management. After studying the incorporation of change management theories with project management, Creasey and Taylor concluded that 62% of project teams that had change management integrated with project management methodologies met or exceeded project objectives (Creasey & Taylor, 2014). Vuorinen and Martinsuo (2019) argued understanding change management theories assists leaders in understanding the different

reasons behind the changes, and therefore, the reasoning of the managers in their change management decisions. Hughes et al. (2017) recognized that project leaders who utilize change management methods in their project management are more likely to have successful project outcomes.

To achieve successful change management in project settings it is crucial there is proper and detailed communication regarding the change in the project, why employees should participate, and how it will impact them (Creasey & Taylor, 2014). Kharat & Naik (2018) identified lack of communication is the most crucial barrier to successfully executing project changes. Another key barrier to executing project changes is the lack of understanding of what the changes entail for the project team (Hughes et al., 2017). Project leaders that have a holistic understanding of the change and are flexible to adapt to the change have a greater chance at properly communicating the change to the project team (Hughes et al., 2017). To fully respond to project changes, project managers must continuously improve their communication strategies throughout the life of the project (Todorovíc, Petrović, Mihic, Obradovic, & Bushuyev, 2015).

The other top contributor to successfully implementing change management in project teams is employee engagement (Creasey & Taylor, 2014). When project team members face project changes with high levels of complexity, they are more likely to become disengaged (Schiff, 2004). Ning and Ling (2015) found complexity in project environments have an impact on team member cooperation and the preservation of relationships. Perceived complexity in project changes can also negatively impact the engagement levels of project team members (F. C. Saunders, Gale, & Sherry, 2015). One

way to reinforce employee engagement is to provide detailed communication regarding the change; another is to provide support when needed and recognize the project team's success (Creasey & Taylor, 2014).

Conforto, Amaral, da Silva, DiFelippo, and Kamikawachi (2016) studied how project teams respond to changes using agility in project management (APM). They defined agility as the practice of quick response to project changes and business changes. With quick project planning sessions and active customer involvement, project teams can accurately respond to project changes (Conforto et al., 2016). Schnabel, Kellenbrink, and Helber (2018) stated as project changes increase completion timeframes, it is more likely the projected revenue will decrease. They advised it is crucial for project managers to have quick response times to all changes and to understand how changes in schedules and resources impact the success of the project (Schnabel et al., 2018).

Project Objectives

Every project has objectives and expectations for completion (Sai Nandeswara Rao & Jigeesh, 2015). Project team members require clear communication to achieve project objectives successfully (Creasey & Taylor, 2014). It is critical that project managers thoroughly communicate what the project objective is, and what restrictions are faced by the project team. Raziq et al. (2018) found clarity in project objectives is crucial to the relationship between leadership style and project success, the project team must understand the established objectives, and have clear directions to reach them.

Allen, Alleyne, Farmer, McRae, and Turner (2014) discovered specific leadership styles directly impacted the realization of project objectives. Some of the more successful

leadership qualities noted were understanding the history of projects within the organization, maintaining good relationships throughout the project team, and focusing on clarifying the project objective (Allen et al., 2014). O'Boyle and Cummins (2013) also researched the importance of leadership styles in meeting project objectives but clarified not all project managers have the flexibility to align their style with the needs of the team. Project managers may identify successful techniques, but not be in a capacity to use them, and require adaptation to move the project team towards the objectives.

Fisher, Pillemer, and Amabile (2018) conducted a qualitative study on leadership styles used on project teams to reach objectives and reported two successful processes, guiding teams through obstacles, and clearing obstacles where applicable. Though flexibility in leadership styles is not always possible (O'Boyle & Cummins, 2013), leaders must still clarify the objective and take action towards engaging the team (Allen et al., 2014; Fisher et al., 2018; Raziq et al., 2018). One method to create engagement within a project team is to align the project objective with the individual goals of the project team members (O'Boyle & Cummins, 2013). Project leaders can also utilize knowledge of engagement when planning project objectives to increase the chances of project success.

Researchers define project success by completing a project within scope, time, and specified budget (Abyad, 2018; Drury-Grogan, 2014; Khan & Rasheed, 2015), managers must consider these measurements when planning for their project objectives, while also considering alignment to organizational objectives. When organizational leaders plan strategic goals, they focus on what needs to be achieved for profitability

within the organization (Allen et al., 2014), whereas project managers identify objectives by aligning to the organizational goals and meeting all customer expectations (Ahmed & Abdullahi, 2017; Allen et al., 2014). Orm and Jeunet (2018) noted many projects have two objectives: one focused on meeting customer expectations and another on minimizing time or budget for the project. As project leaders define and clarify the objectives, they can describe the project boundaries, the scope of the project, and create the project management plan, which documents the objectives and limitations of the project (Allen et al., 2014).

Poor planning by project managers is key to teams not reaching project objectives (Grigore, Ionescu, & Niculescu, 2018). Project managers can negatively impact the team and final objectives with poor planning and a lack of understanding on the project quality (Orm & Jeunet, 2018). To combat negative impacts on project objectives, project managers can conduct monitoring processes to track time, budget, and customer satisfaction (Grigore et al., 2018). A method used by project managers to improve team performance is the creation of iteration objectives. Agile project managers use iteration objectives and track their success by measuring functionality, schedule, quality, and team satisfaction (Drury-Grogan, 2014). Project members feel more engaged and motivated by reaching the defined objective at the end of each iteration, and deficiencies in resources are identified quickly allowing for increased potential in achieving overall project success (Drury-Grogan, 2014).

Employee Engagement

A critical asset for organizations across all industries is engaged employees (Albdour & Altarawneh, 2014; Ghuman, 2016). Worldwide, business leaders struggle to understand how to engage their employees (Heyns & Rothmann, 2018). Many researchers defined employee engagement as the emotional connection between an employee and their work (Anitha, 2014; Ghuman, 2016; Jindal, Shaikh, & Shashank, 2017). The concept of employee engagement was created by Kahn (1990) to explain the physical and emotional connection an employee has towards their work. Kahn (1990) advised when employees are either engaged or disengaged physical changes in their work performance may be visible to managers. There are two essential types of engagement to consider: work engagement and employee engagement. Consiglio, Borgogni, Di Tecco, and Schaufeli (2016) defined work engagement as a positive state of mind that keeps employees happy with their organization. Employees who are "work engaged" respond to interest in their well-being, ability to make decisions, challenging work, advancement opportunities, clear vision of success, and collaborative work environments (Rožman, Shmeleva, & Tominc, 2019). They are dedicated to reaching work specific goals and are fully involved in their work throughout the day. Also, work engaged employees are emotionally connected to their role within the organization (Rožman et al., 2019).

Researchers define both work engagement and employee engagement by three dimensions, vigor, absorption, and dedication (Knight, Patteron, & Dawson, 2017). However, in terms of engagement, work engagement is considered the macro level, and employee engagement is the micro level, but both lead to increased levels of job

satisfaction and lower turnover (Consiglio et al., 2016). Shuck, Rocco, and Albornoz (2011) advised consistent employee engagement is a necessary competitive advantage. Within project teams, project managers are responsible for creating an engaging work environment (Seymour & Geldenhuys, 2018).

Leaders can identify when an employee is engaged through their physical connection to their team or organization and their actions towards achieving organizational goals (Anitha, 2014; Shuck et al., 2011). Often, academics define engagement as an internal phenomenon that leaders can only hope to nurture since engagement is the emotional response of an employee towards their work or environment (Ghuman, 2016). Usually, employees are engaged when they have a positive mindset and feel their work is fulfilling (Ghuman, 2016; Mahipalan, 2018).

In project environments, the work is fast-paced and demanding, with certain constructs defining the team's success, typically scope, time, and budget. Engaged employees impact the probability of success within project environments and increase the potential of increasing operating margins within the organization (Adamski, 2015; Albdour & Altarawneh, 2014; Lather & Jain, 2015). Identifying ways to engage employees is dependent on the leadership style of the project manager and their ability to understand what motivates employees. Yeh (2015) suggested employees require adequate resources available to them to be engaged in their work. Others believe employees seek out working environments with growth opportunities, job security, and fair compensation, and working in such situations will lead to their engagement (Wiley & Lake, 2014). Tian and Robertson (2019) believed organizations with active corporate

social responsibility (CSR) efforts are more likely to have actively engaged employees. Lok and Chin (2019) supported that theory with their study on employee engagement and environmental sustainability efforts. Lok and Chin found employees feel a sense of pride when they participate in environmental sustainability efforts at work and are more likely to be engaged with their work as a result.

Many researchers have found a direct correlation between engagement and team productivity, profitability, retention, and customer satisfaction (Albdour & Altarawneh, 2014; Lather & Jain, 2015; Whittington & Galpin, 2010). Loerzel (2019) identified workplace trust and clarity in job expectations, impact employee engagement, and increase the chances of project success. Similarly, Jindal et al. (2017) argued a committed project team creates a better organizational culture and increased levels of productivity across the organization.

Within an environment of engagement, organizational leaders and project leaders must also consider factors that cause disengagement. Opposed to engagement, a positive mental state of an employee, disengagement is the withdrawal of an employee and a lack of connectedness to the organization (Shuck et al., 2011). Kahn (1990) explained disengagement is apparent when employees begin to withdraw themselves mentally and emotionally from their work, and in some cases physically removing themselves from the workplace. Jindal et al. (2017) advised if employees do not receive the appreciation or recognition, they believe they deserve based on their work experience and knowledge, they are more likely to become disengaged. In project environments, employees that do not have clarity or comfort in the objectives, rules, and their role on the team typically

become disengaged with their work (Adamski, 2015). Moletsane et al. (2019) studied engagement in five levels, engaged, almost engaged, honeymooners, crash-burners, and disengaged. They advised the trend in employee engagement was growing towards disengaged levels due to unclear communication and no transparency within the organization. Disengagement is a critical issue within project environments as it can impact the success rate by decreasing profitability (Lather & Jain, 2015).

Organizational and project leaders can combat disengagement with the right tools, environment, and leadership styles. Ghuman (2016) found the feeling of engagement in employees most often comes from an effective leadership style by management. Leaders that focus on employee satisfaction and comfort as much as customer satisfaction are more likely to engage employees in current and future work (Ghuman, 2016; Shuck et al., 2011). Lather and Jain (2015) encouraged organizational leaders to focus on communication, connections, control, and confidence to engage employees with their work. Tay Lee et al. (2019) suggested leaders utilize the transformational leadership style to engage their employees. Tay Lee et al. advised employees working under transformational leaders feel more inspiration and support in their work environment, leading to their pursuit of more challenges (Tay Lee et al., 2019). Molestane et al. (2019) advised leaders that cannot change their leadership styles need to act strategically and tactically in their approach to nurturing employee engagement.

Creating a culture of open communication can be challenging for some leaders, but the benefits of discussion on profitability and employee engagement are clear (Creasey & Taylor, 2014; Lianto et al., 2018; Molestane et al., 2019). Project leaders can

increase engagement within their team by using effective communication styles and creating a safe environment for innovative contributions (Jindal et al., 2017). Also, providing employees with useful feedback to encourage desired behaviors and recognize contributions, as well as suggesting growth opportunities will lead to engagement (Loerzel, 2019). Lemon and Palenchar (2018) argued for using internal communication to keep all employees informed of critical issues and opportunities within an organization. Lemon and Palenchar advised engaged employees are key stakeholders to an organization, and opening communication is necessary to build engagement. By creating an environment of open communication, managers encourage employees to share thoughts, ideas, and values, which in turn promotes innovative thinking and creative decision making (Lemon & Palenchar, 2018).

Another tool for leaders to build a committed team is to build trust between members and management (Whittington & Galpin, 2010). Seymour and Geldenhuys (2018) explained employees felt more value with their contributions and productive when they trusted their managers. The core element of trust is the acceptance by the employee of their vulnerability, and the belief that the manager will not violate their trust (Heyns & Rothmann, 2018). To encourage trust in teams, managers need to prove their trustworthiness, but once they achieve that goal, they are more likely to build engaged committed teams. Building a trusting environment leads to collaboration and engagement between employees (Matthews, Stanley, & Davidson, 2018). Within a trusting and collaborative environment, employees can receive support and inspiration from coworkers (Lather & Jain, 2015).

As leadership styles differ by individual, it is essential to understand the needs of the employee and how best leaders can meet them (Lather & Jain, 2015). Many leaders understand what employees need to be engaged or inspired: respect, rewards, and freedom (Loerzel, 2019; Wiley & Lake, 2014), but struggle with implementing the changes necessary to fill those needs (Lorezel, 2019). Some researchers argued the focus on providing rewards, such as extrinsic or intrinsic rewards, is the easiest way to build trust and engagement without much change in leadership style (Victor & Hoole, 2017), but many focus on goal setting and alignment between individual needs and organizational needs (Loerzel, 2019; Whittington & Galpin, 2010). Specifically, Whittington and Galpin (2010) argued leaders should implement engagement practices in the macro level of organizational goal setting to align with micro-level goal setting within individual employee development plans.

Aligning objectives to employee goals is a style used by many project managers to create buy-in to project objectives. Wiley and Lake (2014) argued for the use of transparency with organizational goals to build honest communication on the impact of each employee. Similarly, Matthews et al. (2018) demonstrated employees on project teams feel the most engaged when they have clear, attainable objectives, opportunities for personal growth and development, and an apparent problem-solving structure. Most commonly, project leaders focus their leadership style around clear communication, eliminating stress, and engaging employees in reaching the final objective (Ghuman, 2016; Loerzel, 2019).

Measurement of Variables

For this study, I will use the quantitative method to conduct a correlational analysis of project changes, project objectives, and employee engagement. A quantitative approach is an appropriate method for this study, as quantitative researchers study the interactions between variables (Crede & Borrego, 2014). Quantitative researchers also use a correlational design to analyze the causality between the variables (Trafimow, 2014).

To measure project changes and project objectives, I included two forced choice questions after the demographics section of my survey instrument to determine if the project manager encountered any changes throughout the lifespan of their projects and if they met their project objectives. To measure employee engagement, I used the Utrecht Work Engagement Scale (UWES-9), created by Schaufeli and Bakker in 2003 (Lathabhavan, Balasubramanian, & Natarajan, 2017; Schaufeli, Bakker, & Salanova, 2006). Researchers use the UWES scale most often to measure employee engagement (Won Ho, Jong, & Bora, 2017) in three levels: vigor, dedication, and absorption (Knight et al., 2017). Each factor of engagement is scaled on a 7-point Likert-type scale ranging from 0-6 (Mukkavilli et al., 2017).

Lathabhavan et al. (2017) characterized vigor as the persistence of an employee to continue to invest effort and time into their work while facing challenges or unexpected obstacles. Wójcik-Karpacz (2018) defined dedication as the feeling of pride and enthusiasm within the work an employee is producing. Absorption is defined as the

unknowing feeling of engagement in which an employee does not notice the length of the work day (Mukkavilli et al., 2017).

Schaufeli and Bakker believed employee engagement or work engagement was the opposite of burnout, and therefore, not testable with a burnout scale, which led to the creation of the UWES (Knight et al., 2017). Schaufeli and Bakker created the original UWES with 17 testable items, but later shortened the instrument to 15, and finally nine items with three items for each dimension of engagement (Lathabhavan et al., 2017; Wójcik-Karpacz, 2018).

Some researchers criticized the UWES scale three-factor model due to the high correlation between factors and suggested future researchers use a one-factor model (Lathabhavan et al., 2017). Others suggested there is a correlation between engagement and burnout, and therefore, questioning if they are separate measures (Knight et al., 2017). Ladyshewsky and Taplin (2017) argued all three scales of UWES measurement exceed .80 of the Cronbach α, which show consistency in the measurement of engagement. Won Ho et al. (2017) also supported the use of the UWES and advised it is the most popular instrument to measure engagement.

Transition

Project environments are fast-paced and constantly changing. At times the roles of team members are ambiguous, objectives unclear, and the team may be unequipped to deal with changes, which can all impact employee engagement levels. In Section 1, I provided information on the background of the problem, the research question, my hypotheses, the theoretical framework and a comprehensive literature review. Within the

literature review, I provided more background on the theoretical framework and the variables of the study: project changes, project objectives, and employee engagement.

In Section 2, I will expand on my role as the researcher and provide an in-depth look into the research method and design. I will also describe the participants for this study and how I will collect and analyze the data following established ethical standards. In Section 3, I will include a presentation of the findings for this quantitative correlational study. I will also include the applications to professional practice, implications for social change, recommendations for action, recommendations for further research, reflections, and conclusion.

Section 2: The Project

I used a quantitative correlational approach to study the relationship between project changes, project objectives, and employee engagement. Section 2 of this study will contain information on my role as a researcher, participant details, an in-depth overview of the research method and design, an explanation of the population and sampling requirements, and information about how I conducted ethical research. Within this section, I also describe my data collection technique and data analysis.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship between project changes, project objectives, and employee engagement. The independent variables were project changes and project objectives. The dependent variable was employee engagement. The targeted population consisted of project managers working in the Fort Wayne, Indiana area. The implications for positive social change included the potential for project leaders to keep employees informed of project objectives and project changes, which may cause higher employee engagement. Higher employee engagement may contribute to the prosperity of employees, their families, the organization, and the community, as well as a better work-life balance for employees.

Role of the Researcher

Quantitative researchers collect and analyze data to conduct statistical tests of variables (Amah & Sese, 2018). To maintain objectivity, quantitative researchers separate themselves from the tested variables. Breevaart, Bakker, Demerouti, and Derks (2016) acknowledged difficulties in terms of collecting data in quantitative research and stated

quantitative researchers must make efforts to protect the participants and the security of the data.

My role in this quantitative correlational study was to collect data on project changes, project objectives, and employee engagement from project managers working in Fort Wayne, Indiana. I analyzed data to test hypotheses and answer the research question using Statistical Package for the Social Sciences (SPSS) software. I took precautions to ensure I complied with all university guidelines and secured approval from the Institutional Review Board (IRB), 12-11-19-0749942, before collecting any data.

I understood I have an internal bias due to the nature of my work. I am employed as a business analyst on a project team within an insurance company in Ohio. I have worked on projects as a contributing team member nonconsecutively over the last 5 years. Though I have experience with project teams, I have not worked on a project within the Fort Wayne, Indiana area, nor have I managed any project. To mitigate some of my bias in this research subject, I collected data from the research participants by using SurveyMonkey.

To protect the credibility of my study, I followed the principles and procedures of *The Belmont Report*. *The Belmont Report* was created in 1978 to set the standard of ethical conduct expected in research involving human participants (Adashi, Walters, & Menikoff, 2018). The three principles of *The Belmont Report* are beneficence, justice, and respect for persons involved in research (Adashi et al., 2018; Office for Human Research Protections, 2018). In support of these principles, I respected all persons who chose to participate in this study, I protected all participants from harm in the context of

this study, and I treated all participants equally and justly. I also provided an informed consent document at the beginning of the data collection process that detailed the expectations of participants and ensured their confidentiality and their right to withdraw from the study at any time. I also assessed all risks of the study and ensured ethical selection of participants.

Participants

Project managers are essential to implementing innovative ideas, adapting to market changes, and predicting future customer needs (Ogonowski & Madziński, 2019). Project managers have the most knowledge and experience in terms of what impacts project success (Alvarenga, Branco, do Valle, Soares, & da Silveira e Silva, 2018). Other project personnel may not have this knowledge, which is why I did not include them in this study.

Project managers working in Fort Wayne, Indiana were the target participants for this quantitative correlational study. To gain access to this participant group, I created a request-for-permission letter to introduce myself and provide details of my study. I sent this letter to organizational leaders working in Fort Wayne who had project managers within their organization. To establish a working relationship with organizational leaders and participants, I also included a statement that there were minimal risks and direct benefits for any participant, as well as information about methods for securing data, and this study was voluntary, so participants could withdraw at any time. I used a web-based survey method SurveyMonkey to collect data from the participants. Web-based survey methods are faster and cost less than a traditional paper-based survey method (Watson,

Robinson, Harker, & Arriola, 2016). I explained to all participants and organizational leaders how to access the survey and the approximate length of time it would take to complete.

Research Method and Design

Research Method

I used a quantitative research method for my study on the relationship between project changes, project objectives, and employee engagement. Researchers use quantitative research to determine if a relationship exists between variables with statistical testing (Hosseini, Ivanov, & Dolgui, 2019). Quantitative researchers rely on objective data to attempt to find answers to their research questions (Alvarenga et al., 2018). A quantitative research method was appropriate for this study because I conducted statistical tests using objective data to determine if there was a relationship between project changes, project objectives, and employee engagement.

Quantitative researchers focus on the objectivity of statistical tests, but qualitative researchers focus on the subjective data that comes from personal interviews (Wolday, Næss, & Cao, 2019). Many researchers use qualitative methods to explore insights in terms of of how or why a phenomenon occurs (Wolday et al., 2019). Since I focused my study on the relationship between my predictor variables and employee engagement, a qualitative approach was not an appropriate research method.

Mixed methods research is the combination of both quantitative and qualitative research within a study (Southam-Gero & Dorsey, 2014). Many researchers choose to use mixed methods research to offset the weaknesses of quantitative and qualitative methods

(Sparkes, 2014). Since I did not use qualitative data in my study, a mixed methods approach was not appropriate.

Research Design

Within this quantitative study, I used a correlational design. The most common quantitative research designs are experimental, quasi-experimental, and correlational (Wells, Kolek, Williams, & Saunders, 2015). Researchers use experimental designs to focus on causation or an explanation of a phenomenon (Geuens & De Pelsmacker, 2017). They use quasi-experimental designs to determine causal impact after manipulating predictor variables (Barrera-Osorio, Garcia, Rodriguez, Sanchez, & Arbelaez, 2018). Since I was not looking to determine cause and effect or manipulate my predictor variables, neither experimental nor quasi-experimental designs were appropriate for this study. Researchers use a correlational design to test the relationship between two or more variables (Aderibigbe & Mjoli, 2019; Curtis, Comiskey, & Dempsey, 2016). I looked to test the relationship between project changes, project objectives, and employee engagement. Therefore, a correlational design was appropriate for this study.

Population and Sampling

The population for this study consisted of project managers working within Fort Wayne, Indiana. A project manager is the person assigned by organizational leaders to lead a team to achieve project success (Alvarenga et al., 2018). Project managers may work in various industries, such as technology, construction, insurance, healthcare, and environmental sectors (Artto, Gemünden, Walker, & Peippo-Lavikka, 2017). The research question I investigated was: What is the relationship between project changes,

project objectives, and employee engagement? The population of project managers working in any industry located in Fort Wayne, Indiana was appropriate for this study because, According to Artto et al. (2017), project managers control the direction of project teams in terms of adapting to changes, meeting objectives, and project managers must be aware of the team's engagement.

I choose participants through nonprobabilistic convenience sampling. Researchers typically use probabilistic sampling like simple random and systemic sampling to find more generalizable data (Lawson & Ponkaew, 2019). Researchers use nonprobabilistic sampling to choose participants based on the convenience of the researcher, knowing the participants fit the target population (Terhanian, Bremer, Olmsted, & Jiqiang, 2016). I chose a nonprobabilistic convenience sampling due to the accessibility and proximity of the participants.

Sample sizes that are too small or too large can negatively impact the accuracy of the statistical results, by working within the determined range of sample sizes the results are more generalizable (Hopkins & Ferguson, 2014). I used the G*Power 3.1.9.4 program to determine the sample size using an a priori power analysis (Faul, Erdfelder, Buchner, & Lang, 2009). Faul et al. (2009) advised the effect sizes range from .02, .15, and .35, which are small, medium, and large, respectively. I used the medium Cohen's f^2 effect size of .15, two predictor variables (project changes and project objectives), an alpha value of $\alpha = .05$ and two power values of .80 and .99 to determine the minimum and maximum sample sizes needed. As a result, the participant sample size range for this study is 68 to 146, as shown in Table 2.

Table 2

*G*Power 3.1.9.4 Sample Sizes*

Effect Size (f^2)	Power (R^2)	A	Total
.15	.80	.05	68
.15	.99	.05	146

Ethical Research

To ensure the ethical standards of my study, I followed the basic principles of *The Belmont Report*; I protected, respected, and justly treated all participants of this study. I did not begin the process of data collection until I received a Walden University IRB approval number. The IRB approval number 12-11-19-0749942 was granted for this study. After I was approved to collect data, I used SurveyMonkey to administer the survey questions online. I did not provide any incentives for participants to participate in my study. Before any participant was allowed to begin the survey, they read an introductory letter and informed consent document. The informed consent document outlined my role as a researcher, the participants right to withdraw from the study at any time, and their right to confidentiality. In the informed consent document, I included my email and phone number as contact information for participants to use if they have questions. Participants were able to withdraw from the study in SurveyMonkey at any point by (a) exiting the survey using the exit link in the upper-right hand corner of the browser page, (b) not submitting the survey results, or (c) submitting an incomplete survey. I did not include any incomplete survey results in my data collection process. I

did not ask any participant for personal information such as names or places of employment to protect their privacy and confidentiality.

I kept the SurveyMonkey platform available for the time necessary to collect data within my sample size. I worked on a password-protected computer to analyze the data using the SPSS software. Once I calculated the results, I transferred all data related to this study to a flash drive, which I will store in a fireproof safe for 5 years. After 5 years, I will destroy the data.

Instrumentation

To collect data for this study, I used an online survey. I used a survey to collect data due to the ease of access to the target population, and the reduced time and cost to collect data. The survey contained questions regarding demographic information, two forced choice questions to measure the independent variables – project changes and project objectives, and The Utrecht Work Engagement Scale (UWES-9) to measure the dependent variable –employee engagement. Schaufeli and Bakker created the UWES-9 in 2003 to measure employee engagement with three levels, vigor, dedication, and absorption (Knight et al., 2017; Lathabhavan et al., 2017; Schaufeli et al., 2006). Vigor is described as the characteristic of employees to persist in investing effort into their work regardless of the challenges or obstacles they face (Lathabhavan et al., 2017). Wójcik-Karpacz (2018) described dedication as the feeling of pride employees have of the work they do within their organization. Absorption is the feeling of being engrossed in work to not notice the time passing (Mukkavilli et al., 2017).

The original UWES scale consisted of 17 items, but Schaufeli and Bakker periodically reduced the scale until they reached nine items, three testable items for each level of engagement, vigor, dedication, and absorption (Knight et al., 2017; Schaufeli et al., 2006). They collected data from 10 different countries (N = 14,521), and shortened the scale to nine items, which still had internal consistency and test-retest reliability (Schaufeli et al., 2006). The UWES-9 had a Cronbach α between .85 and .92 across all ten countries tested by the researchers (Schaufeli et al., 2006).

The UWES-9 uses a 7-point Likert-type scale, 0 = never, 1 = almost never, 2 = rarely, 3 = sometimes, 4 = often, 5 = very often, and 6 = always (Schaufeli et al., 2006). The survey will take the participants approximately five to ten minutes to complete. I included a copy of the UWES-9 instrument in Appendix A of this study. I also added the notice of approval from the creator of the UWES-9 in Appendix B. All data at that time is available by request from the researcher to protect the confidentiality of the participants.

Data Collection Technique

To collect data for this study, I used an online survey on the SurveyMonkey platform. Some researchers argued participants in a survey research do not fully engage in the survey and do not provide well thought out answers (Liu & Wronski, 2018). However, web surveys may elicit more honest responses than paper-based surveys or other data collection methods (Liu & Wronski, 2018). I used the survey method as it provides ease of use, reduced costs, and easier access to the target population. The survey consisted of three categories: demographics, independent variable measures, and dependent variable measure. The demographics section included questions on the

participant's age, gender, and the number of years working in a project management capacity. I did not incorporate any personal information such as name or employer to protect the participants. The second section consisted of two forced-choice questions to measure project changes and project objectives. The final part of the survey included the UWES-9 to measure the constructs of employee engagement. I contacted multiple organizations within Fort Wayne, Indiana, to request the participation of project managers in this survey. I outlined my role as the researcher and the steps I took to protect the organizations and participants involvement. I also included an estimated time the survey should take to complete, and how I will protect the data after completion of this study.

I did not conduct a pilot study due to the widespread use of the UWES-9 instrument to measure employee engagement. Also, the UWES-9 instrument was proven reliable and valid to test the constructs of engagement (Schaufeli et al., 2006). After I received IRB approval, I started the data collection process for my study on the relationship between project changes, project objectives, and employee engagement.

Data Analysis

The research question for this study was: What is the relationship between project changes, project objectives, and employee engagement? The following are the hypotheses for this study:

Null hypothesis (H_0): There is no statistically significant relationship between project changes, project objectives, and employee engagement.

Alternative hypothesis *(H_1):* There is a statistically significant relationship between project changes, project objectives, and employee engagement.

The objective of this study was to understand what relationship, if any, may exist between project changes, project objectives, and employee engagement. Since there are two predictor variables and one dependent variable, I used a multiple linear regression analysis. Multiple linear regression analysis was appropriate in studies that contain two or more predictor variables (Kim, Kim, Jung, & Kim, 2016); therefore, it was suitable for this study. The other statistical analysis technique, such as bivariate linear regression, was not appropriate for this study as it uses only a single predictor variable. Hierarchical multiple regression analysis requires controlling the influence of the other variables (Saunder et al., 2015), so it was not a suitable choice for this study.

I did not encounter any corrupt or incomplete data; therefore, I did not perform data cleaning. Data cleaning is the process of the researcher to identify and correct imperfections in the data (Greenwood-Nimmo & Shields, 2017). Data is clean when it is reliable, reproducible, and mostly free from omissions and biases (Greenwood-Nimmo & Shields, 2017). I omitted any incomplete survey results to ensure the use of clean data within this study.

By using multiple linear regression analysis to test the variables, there were four assumptions I tested for: linearity, homoscedasticity, multicollinearity, and normality. If the data does not meet any of the four assumptions, it is considered a type 1 or type 2 error (M. N. K. Saunders et al., 2015). Linearity is the degree in which a change in the dependent variable relates to a change in the predictor variable (M. N. K. Saunders et al.,

2015). Homoscedasticity is the equal variances in the data for the dependent and predictor variables (Kim et al., 2016).

I used the SPSS software version 25 to test the data for the predictor and dependent variables. I also obtained descriptive statistics and visual aids to display the data. Within SPSS, I determined a violation in linearity and homoscedasticity by testing each assumption with scatterplots. After the violation of the assumptions, I spoke with a quantitative expert to decide the appropriate steps. To address these violations, and support the multiple linear regression analysis results, I conducted an independent samples t-test.

Study Validity

The most widely known versions of validity are internal and external. Since I did not conduct an experimental or quasi-experimental study, I did not need to address internal validity. However, external validity is the extent to which research results are generalizable (Lievens, Oostrom, Sackett, Dahlke, & De Soete, 2019). By collecting data within the determined sample size and using the SPSS program to analyze the data, I reduced threats to external validity.

Another version of validity to consider in quantitative research is statistical conclusion validity. The two types of statistical conclusion errors are type I and type II errors (Gaskin & Happell, 2014). A type I error is accepting the alternative hypothesis and stating a relationship exists between variables when there is no relationship present (Ampatzoglou, Bibi, Avgeriou, Verbeek, & Chatzigeorgiou, 2019). A type II error is accepting the null hypothesis and saying no relationship exists, when in fact, there is a

relationship between the variables (Ampatzoglou et al., 2019). I attempted to control for type I and type II errors in my study by ensuring I received ample data within the determined sample size range and utilizing the SPSS software to analyze the data. Also, I chose instruments that match the variables of this study; choosing instruments that match the variables of the study decreases the probability of committing a type I or type II error (Gaskin & Happell, 2014).

Transition and Summary

In this section, I discussed in more detail the purpose of this study and the intended research method and design. I also covered information on the participants of the study, my role as a researcher, how I accessed the target population, my intended methods of data collection and analysis, how I ensured validity, and how I conducted an ethical study. The purpose of this quantitative correlational study was to examine the relationship between project changes, project objectives, and employee engagement. I used multiple linear regression analysis to determine if any relationship exists between the two independent variables and the dependent variable employee engagement. In Section 3, I describe the findings of the study, the applications to professional practice, the implications for social change, and my recommendations for future research.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this quantitative correlational study was to examine the relationship between project changes, project objectives, and employee engagement. The independent variables were project changes and project objectives. The dependent variable was employee engagement. The research question was: What is the relationship between project changes, project objectives, and employee engagement? The null hypothesis (H_0) was there was no statistically significant relationship between project changes, project objectives, and employee engagement. The alternative hypothesis (H_1) was there was a statistically significant relationship between project changes, project objectives, and employee engagement.

To collect data, I created an online survey using SurveyMonkey. A minimum sample size was calculated using the G*Power program and determined to be between 68 and 146. I used publicly available information and my personal and professional network to contact potential participants. Over two months, I received 80 responses, but four respondents did not complete all questions, so I did not consider those surveys in the sample. I conducted my analysis with the remaining 76 survey responses. After analyzing the data, I rejected the alternative hypothesis and accepted the null hypothesis.

Presentation of the Findings

In this section, I will discuss the testing of assumptions, present descriptive statistics and inferential statistical results, connect the study to the theoretical framework,

and summarize the full study. I employed bootstrapping, using 1,000 samples to address the possible influence of assumption violations. Thus, bootstrapping 95% confidence intervals are presented where appropriate.

Test of Assumptions

I used SPSS Version 25.0 to test for multicollinearity, outliers, normality, linearity, and homoscedasticity. Bootstrapping, using 1,000 samples, enabled combating the influence of assumption violations. James (2020) and Rungi (2014) tested assumptions in their analysis to ensure no violations occur that could impact the results. In an attempt to combat any violations, I also used bootstrapping with 1,000 samples.

Multicollinearity. I evaluated multicollinearity by examining the variance inflation factor. Gómez, Pérez, Martín, and García (2016) researched collinearity and the variance inflation factor (VIF). Gómez et al. stated that values of VIF higher than 10 or lower than .10 show high collinearity in the data. Values between .10 and 10 are considered an acceptable range of collinearity (Gómez et al., 2016). Table 3 shows the tolerance and variance inflation factor and does not show evidence of a violation of the assumption of multicollinearity.

Table 3

Statistics for Multicollinearity

Variable	Tolerance	VIF
Project Changes	1.000	1.000
Project Objectives	1.000	1.000

Outliers and normality. I evaluated outliers by reviewing Cook's distance in my residual statistics table. If Cook's distance is less than one, then researchers do not have to remove outliers in their analysis (Menzel et al., 2017). I evaluated normality with a Shapiro-Wilk test. Normality assumes the independent variables are normally distributed (Saunders et al., 2015). If the statistical significance of the Shapiro-Wilk test is below .05, there is a violation of normality (Bradley, 2017). Table 4 shows there was no violation in normality, as the statistical significance is .148.

Table 4

Statistics for Normality

	Statistic	Df	Sig.
Engagement	.975	76	.148

Note: Shapiro-Wilk Test.

Linearity and homoscedasticity. I evaluated linearity and homoscedasticity using scatterplots. Unfortunately, due to the dichotomous nature of my independent variables, I violated these assumptions. As indicated in Figure 1, the data do not follow a

random pattern.

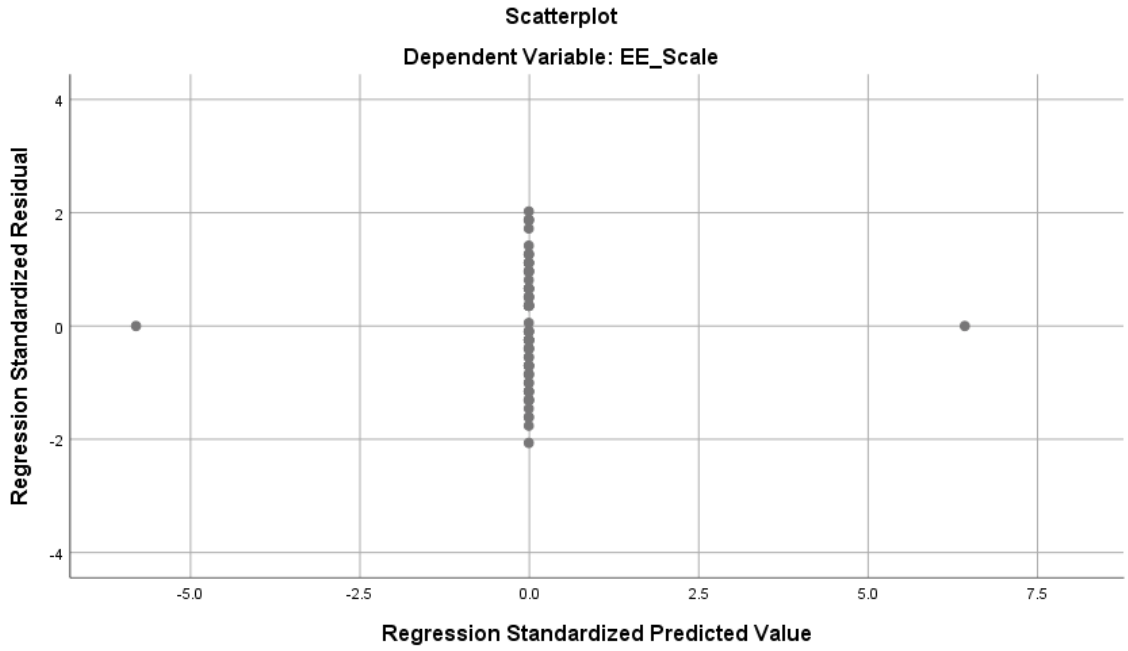

Figure 1. Residual scatterplot for homoscedasticity.

To address this violation, I conducted an independent samples t-test to evaluate if there was a statistically significant difference in terms of mean engagement between project changes and project objectives. The results of the independent samples t-test showed that mean engagement between project changes (M = 46.73, SD = 6.61, n = 75) and project objectives (M = 46.54, SD = 6.60, n = 75) was not statistically significant [$t(74) = 1.01$, $p = .315$ $t(74) = -1.12$, $p = .266$].

Descriptive Statistics

The online survey was available between January 2020 to March 2020, and I received a total of 80 surveys. Four of the 80 were not complete, and therefore not used in the data analysis, leaving 76 survey responses used for analysis. Out of the 76 survey

responses used, 52.6% of responses came from males and 47.4% from females. Four participants were PMI certified, and the majority worked in a project capacity for less than 5 years. Table 5 includes descriptive statistics of baseline demographic information.

Table 5

Descriptive Statistics for Demographic Variables

Variable		*Frequency*	*%*
Age			
	18 - 24	6	7.9
	25 – 34	20	26.3
	35 – 44	24	31.6
	45 – 54	16	21.1
	55 – 64	10	13.2
Gender			
	Female	36	47.4
	Male	40	52.6
Education			
	High school or equivalent	6	7.9
	Associate or technical degree	20	26.3
	Bachelor's degree	44	57.9
	Master's degree	5	6.6
	Doctorate degree	1	1.3
PMP Certification			
	Yes	4	5.3
	No	72	94.7
Years in position			
	Less than 5	30	39.5
	5 - 10	18	23.7
	11-15	8	10.5
	16-20	10	13.2
	Above 20	10	13.2

Note. $N = 76$.

Inferential Results

To answer my research question, what is the relationship between project changes, project objectives, and employee engagement, I used a standard multiple linear regression analysis, $\alpha = .05$ (two-tailed) and an independent samples t-test using SPSS 25. The independent variables were project changes and project objectives. The dependent variable was employee engagement. I ran the multiple linear regression $\alpha = .05$ (two-tailed), and found the model as a whole was not able to significantly predict employee engagement, F (2, 73) = 1.127, p = .330, R^2 = .030. The R^2 (.030) value indicated that approximately 3% of variations in engagement is accounted for by the linear combination of the independent variables (project changes and project objectives).

In my efforts to test for violations of the assumptions of multicollinearity, outliers, normality, and homoscedasticity, I found I could not meet certain assumptions with the dichotomous data I collected for my independent variables. To account for this type of data, I ran an independent samples t-test for my independent variables. The results of the independent samples t-test, as shown in Table 6 and Table 7, indicated that the mean engagement between project changes (M = 46.73, SD = 6.61, n = 75) and project objectives (M = 46.54, SD = 6.60, n = 75) was not statistically significant [t(74) = 1.01, p = .315 t(74) = -1.12, p = .266].

Table 6

Independent Samples T-Test Project Changes

	Project Changes								
	Yes			No					
	M	*SD*	n	*M*	*SD*	n	*t*	*df*	*P*
Engagement	46.73	6.61	75	40.00	.	1	1.01	74	.315

Table 7

Independent Samples T-Test Project Objectives

	Project Objectives								
	Yes			No					
	M	*SD*	n	*M*	*SD*	n	*t*	*df*	*P*
Engagement	46.54	6.60	75	54.00	0	1	-1.12	74	.266

Analysis summary. My goal for this study was to examine the efficacy of project changes and project objectives in predicting employee engagement. I used a standard multiple linear regression and independent samples t-test to examine the ability of project changes and project objectives to predict the value of employee engagement. I ran the independent samples t-test due to the violation of the assumptions of linearity and homoscedasticity. The model was not able to significantly predict employee engagement, F (2, 73) = 1.127, p = .330, R^2 = .030. The conclusion from this analysis is that project changes and project objectives are not significantly associated with employee engagement.

Theoretical discussion of findings. The theoretical framework for this study was the path-goal theory developed by House. House (1971) said the use of structure and

clarity around employee roles provides support and motivation and fosters employee engagement. I chose project changes and project objectives as the independent variables for this study to model the steps in path-goal theory to address obstacles and clarify the path. The findings from this study did not support House's (1971) path-goal theory due to the lack of correlation between project changes and project objectives with employee engagement.

Many studies support the principles of the path-goal theory. Domingue et al. (2017) found many leadership styles work within the path-goal theory that results in employee motivation and engagement. Vieira, Perin, and Sampaio (2018) found a positive relationship between transactional leadership, used within the path-goal theory, and the performance and engagement levels of salespeople. Magombo-Bwanali (2019) found a partial correlation between path-goal leadership behaviors and the work performance of employees. Vieira et al. and Magombo-Bwanali used the path-goal theory model to test employee engagement and found partial or positive relationships.

Alternatively, there are other studies, like my own, that do not support the path-goal theory. My findings are similar to those of Schriesheim and DeNisi (1981), who did not find predictors of motivation or engagement in the constructs of the path-goal theory. Dessler and Valenzi (1971) found that in three cases the constructs of the path-goal theory did not provide statistically significant relationships to engagement. Rana, K'aol, and Kirubi (2019) found no correlation between certain aspects of the path-goal theory and employee performance.

In summary, I found no statistically significant relationship between project changes, project objectives, and employee engagement, which do not support the path-goal theory. However, other researchers with similarly structured studies had mixed results, from no correlation to partial correlation to positive correlations between constructs of the path-goal theory and employee engagement. The combined effects of support of the path-goal theory suggest more research could help identify the underlying constructs of the path-goal theory and their relationship with employee engagement.

Applications to Professional Practice

This study's objective was to determine the relationship, if any, between project changes, project objectives, and employee engagement. The findings led to my rejection of the alternative hypothesis because there was no statistically significant relationship between project changes, project objectives, and employee engagement. However, this does not reduce the importance of employee engagement within a project team.

Throughout this study, I demonstrated the need for project managers and project leaders to understand the impact employee engagement has on project success. In the literature review, I discussed multiple studies in which researchers showed how employee engagement affects project teams. Also, I discussed the negative implications disengagement could mean for entire organizations. The results of this study do not change the importance of employee engagement. Though no statistically significant relationship was present, the results do still provide insight into employee engagement within project teams.

Since employee engagement is a crucial asset for organizations in every industry, it is essential business leaders understand the factors that impact employee engagement (Albdour & Altarawneh, 2014; Ghuman, 2016). Project environments are fast-paced and constantly changing, with many factors that contribute to the success of the team (Lather & Jain, 2015). Project changes and project objectives are two broad factors that impact project team performance, if not their engagement, and are still essential for project managers to understand.

Implications for Social Change

Understanding the importance of employee engagement is essential to improving the well-being of those in the surrounding communities. Engaged employees have a positive state of mind that helps build strong relationships and connections (Consiglio et al., 2016). Lok and Chin (2019) found that engaged employees were more likely to feel pride in their work towards environmental sustainability and social responsibility. When leaders engage their employees at work, the employees bring that positivity and commitment to all aspects of their lives.

Employee engagement in organizations and project teams is crucial, so leaders need to engage employees in project environments, especially those within nonprofit and governmental agencies. Within these environments, engaged employees may positively impact the communities in two ways. First is by improving the employee's well-being, social interactions, and personal health. Second is by improving the success rate of projects that benefit the community, such as infrastructure, development, education, health, and wellness (Ika & Donnelly, 2017). Though my results did not indicate a

statistically significant relationship, this study did not minimize the importance of employee engagement.

Recommendations for Action

The purpose of this quantitative correlational study was to examine the relationship between project changes, project objectives, and employee engagement. The findings of this study led to the rejection of the alternative hypothesis because no statistically significant relationship existed between the independent variables, project changes, and project objectives, and the dependent variable, employee engagement. Though more research is needed to understand the relationship between project components and employee engagement, it is crucial project teams make employee engagement a priority.

Project leaders and project managers are responsible for keeping the project team working within the defined scope, time, and budget, which all impact project success. Having an engaged team enhances the likelihood of success in reaching the objectives within the established requirements. Throughout this study, I have provided information on how employee engagement influences project team behavior and project success.

Project managers and project leaders in the Fort Wayne, Indiana area should use the results from this study and the information provided within the literature review to further advocate for an understanding of how the project environment impacts team members' engagement. Also, any organizational leaders acting as sponsors to project teams should use the provided information to understand the impact project team members can make on project results and corporate results. I will post this study on my

LinkedIn account to bring broader attention to the findings and the importance of employee engagement.

Recommendations for Further Research

My recommendation for further research is to expand the scope of the independent variables project changes and project objectives to see if more specific variables in the project life cycle make an impact on employee engagement. Due to the dichotomous nature of my variables, I was not able to pass the assumptions of the multiple linear regression analysis. By narrowing down the independent variables to more specific testable variables, I would hope to pass the assumptions and determine if any new relationships exist between them and employee engagement.

Also, aside from changing my independent variables, I believe broadening the population and conducting a mixed-method study would assist in gathering more responses. The difficulty I faced in obtaining participants was a limitation to this study, so using a qualitative approach to support the quantitative data could provide more insights into the relationship project components have with employee engagement. Also, expanding the study to a mixed-method approach would reduce the reliance on completion of the online survey, which could result in more participation.

Reflections

I began this journey to explore my knowledge of project management, project teams, project strategies, and employee engagement. I was at a point in my life that I felt I had the time and capacity to explore my curiosity and passion in project management.

As excited as I was to start the journey, I did not initially prepare enough for the planning and commitment I would need to make to succeed.

Initially, I wanted to conduct a qualitative study to explore strategies to improve employee engagement on project teams. After reading multiple articles on the topic, I found I was more curious to see what impacts employee engagement. I switched from a qualitative study to a quantitative study, which caused me to learn more about statistics and the significance of quantitative data in research.

This process has been both motivating and humbling. I started this journey, thinking I knew how projects could impact employee engagement, but the research I conducted, and the results of this study proved I have so much more to learn and explore regarding this topic. I am grateful I learned to think like a doctoral scholar and to write in a manner that reflected the scholarly process. I improved my time management skills and began to prioritize things in my life. Overall, I feel I gained so much more during these processes than I could have imagined when I started.

Conclusion

In project environments, leaders and managers expect that team members work in a fast-paced and demanding environment. Project members deal with continual challenges, and projects often face unexpected changes to the time, scope, and budget. Keeping an engaged team can directly impact the success of a project (Adamski, 2015; Lather & Jain, 2015). In this study, I intended to examine the relationship between project changes, project objectives, and employee engagement of project managers in the Fort Wayne, Indiana, area. I used SPSS version 25 to test my hypotheses and to conduct

an independent samples t-test and multiple linear regression analysis. I based my independent variables on the constructs of the path-goal theory. I found no statistically significant relationship between project changes, project objectives, and employee engagement.

The results of this study do not support House's (1971) path-goal theory. However, overall I have given an abundance of information to show the importance of employee engagement on project teams. Hopefully, the results of this study will provide more insight into the importance of studying the relationship between project constructs and employee engagement.

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Appendix A: UWES-9 Questionnaire

Work & Wellbeing Survey (UWES)

The following 9 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the "0" (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

	Almost Never	Rarely	Sometimes	Often	Very Often	Always
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every Day

1. _____ At my work, I feel bursting with energy
2. _____ At my job, I feel strong and vigorous
3. _____ I am enthusiastic about my job
4. _____ My job inspires me
5. _____ When I get up in the morning, I feel like going to work
6. _____ I feel happy when I am working intensely
7. _____ I am proud of the work that I do

8. _____ I am immersed in my work

9. _____ I get carried away when I'm working

Appendix B: UWES-9 Authorization Email

Schaufeli, W.B. (Wilmar) <w.schaufeli@uu.nl>
Mon 7/22/2019 7:36 PM
Jaclyn Hartwell

Dear Jaclyn,

Thank you very much for your interest in my work.

You may use the UWES free of charge, but only for non-commercial, academic research. In case of commercial use we should draft a contract.

Please visit my website (address below) from which the UWES can be downloaded, as well as all my publications on the subject.

Good luck with your research.

With kind regards,

Wilmar Schaufeli

Wilmar B. Schaufeli, PhD | Full Professor of Work and Organizational Psychology | *Social, Health & Organizational Psychology* | Utrecht University | P.O. Box 80.140, 3508 TC Utrecht, The Netherlands | Phone: (31) 6514 75784 | Site: www.wilmarschaufeli.nl | citations |

Op 22 jul. 2019, om 16:01 heeft Jaclyn Hartwell <jaclyn.hartwell@waldenu.edu> het volgende geschreven:

Hello Dr. Schaufeli,

My name is Jaclyn Hartwell, and I am a Doctor of Business Administration candidate at Walden University. For my doctoral degree, I am working on a study to determine the correlation between project changes, project objectives, and employee engagement. I want to use the UWES-9 questionnaire to measure my dependent variable, employee engagement, but I need permission to replicate and use the instrument. May I please have your permission to utilize the UWES-9 instrument in my study?

Sincerely,
Jaclyn Hartwell, MBA