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## Situational Impact on Leadership Styles with Emerging Construction Managers

**Anthony Perrenoud, Ph.D. and Meagan Patterson**  
Boise State University  
Boise, ID

Leadership in the construction industry can determine the success of a project. However, many emerging construction managers do not understand the different styles of leadership. Three common leadership styles are Autocratic, Democratic, and Laissez-faire. Adapting leadership styles to the situation will have an immediate impact on the success of the leader. The objective of this study was to examine the impact that the situation has on leadership styles with early-career construction managers. Forty-five early career construction managers participated with the study and examined their preferred leadership styles in two different situations. The survey examined the differences in their responses with the two situations. The preferred leadership style that the participants selected was democratic, however in the second situation that presented more stress the participants were more likely to demonstrate Autocratic leadership.

**Key Words:** Leadership, Autocratic, Democratic, Laissez-faire, Leadership Training

### Introduction

There are several leadership styles that a construction manager can display on the job. The three most discussed leadership types are Autocratic, Democratic, and Laissez-faire. Often, leaders can move from one type of style to another. It is important to understand the advantages and disadvantages of each type of leadership style to ensure that one is utilizing the best leadership style for the circumstances. The construction job site presents many different situations, and they call for some adaptability with leadership. As with the different leadership styles, there are many different types of followers in construction, some of which will respond to certain leadership styles better than others. Becoming aware of ones' preferred leadership styles is an important aspect of leadership training. Understanding how the situation may impact a leader's preferred leadership styles will help build their awareness to reduce negative impacts on those that follow them. This paper aims to investigate the difference between leadership styles and two different project situations with construction managers. Forty-five early-career project managers participated in the study and identified the impact that the situation has on leadership styles.

## Literature Review

Emerging construction managers must learn to become good leaders to have a positive impact on the workforce. Some take a heavy-handed approach, while others prefer to be less involved. Styles fluctuate, as does their effectiveness at the workplace. Several leadership styles are studied; however, three core leadership styles are prevalent in leadership research; autocratic, democratic, and laissez-faire (Mills and Jung 2012; Khan & Khan, 2015). The autocratic style is one in which the manager retains as much power and decision-making authority as possible. This style clearly defines the leader's role as the boss but may cause a disconnected relationship with employees to form. Autocratic individuals are solely focused on the task at hand and how to complete it. Laissez-faire leadership is on the other end of the spectrum. It is one in which the manager provides little or no direction and gives their employees as much freedom as possible. All authority or power is given to the employees, and they can determine goals, make decisions, and resolve problems on their own. In the middle of these two leadership styles is the democratic leader. Democratic leaders focus on building working relationships with coworkers. This style shares the power and focuses on building trust with their employees that promote a collaborative work environment. It encourages employees to give input, but the final decision still lies with the manager (Sundar, 2019). Democratic may be useful because collaboration in the workplace can help promote a team mindset (Bresnen et al, 1986). Figure 1 presents the continuum of leadership behaviors first presented by Tannenbaum and Schmidt (1973), which presents who controls decision-making power between the leader and their employees or followers.

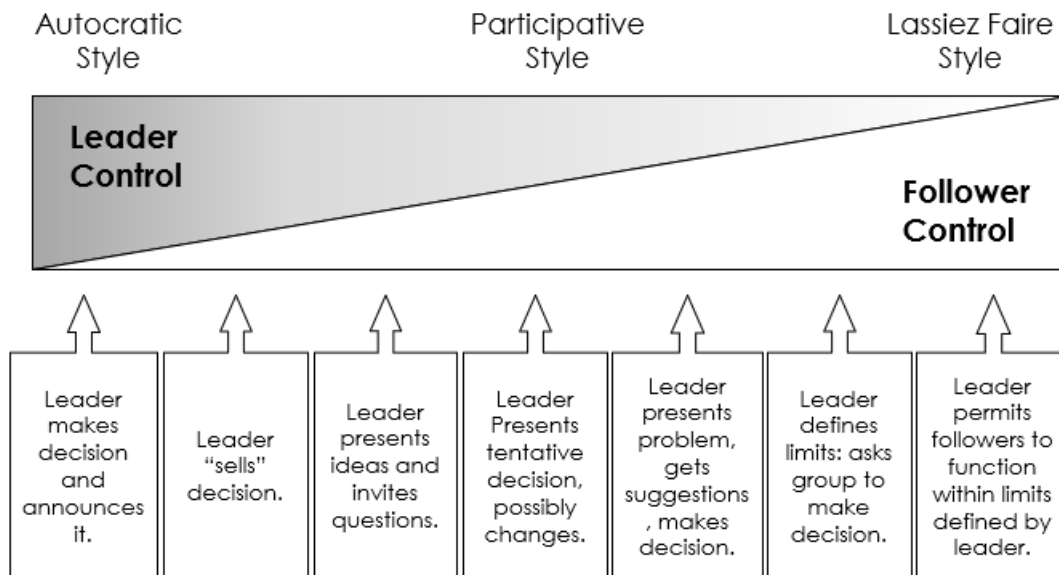


Figure 1. The Continuum of Leadership Behavior (Adopted from Tannenbaum and Schmidt, 1973)

In 2012, Thomas Mills and Younghan Jung sent out a questionnaire to 94 construction workers on the construction job site to find their opinions on which leadership style was most preferred. It was found that most workers strived to use a democratic approach. However, the researchers believed that project executives, project managers, superintendents, office engineers, and field engineers should use different leadership styles dependent on their roles and responsibilities. They inferred that the traditional style of leadership in which the leader demonstrates a strong autocratic leadership style

may not be the 'best' style and that leaders should employ a mix of various styles to succeed. (Mills and Jung, 2012). Mills and Jung recommend that further research is needed on leadership styles in construction as it has a large impact on organizational success. Another researcher, Shalini Sundar (2019), recognized the democratic approach as the most dependable on the construction job site. Sundar studied the impact that leadership style has on employee satisfaction in the construction industry and found that out of the three styles, democratic and laissez-faire were found to have a direct positive effect on job satisfaction. The two styles focus on building coworker relationships and inviting positive conversations as opposed to autocratic which does not bother. However, some articles outright reject the laissez-faire styles on the construction job site. One study focused on how leadership styles impact construction site safety and the researchers warned against laissez-faire leadership style (Grill et al. 2018). This was because the study found a correlation between laissez-faire leadership styles and unsafe construction sites.

The situation can have an immediate impact on the leadership style that one demonstrates. For example, a stressful project may largely impact leadership skills on a construction site. Construction managers have one of the heaviest workloads in construction, making their position very prone to stress. Mentally, stress may lead to depression, anxiety, poor decision-making, and poor work performance (Djebarni, 1996). Djebarni (1996) found that construction leaders were more successful in stressful situations when they demonstrated autocratic behaviors. This was due to the autocratic leaders focusing more on the task or project and focusing less attention on building their relationships with their team members. Another study agreed that the autocratic leadership style was better on a stressful job site; however, they also found that the Construction managers who focused more on building good relationships with their team members had better overall worksite performance (Bresnen et al, 1986). The pros and cons of each style vary, and one should not solely seat themselves within one style. Flexibility is key as one never knows what the situation will bring.

## Methodology

The objective of this study was to examine the impact that the situation has on leadership styles with early-career construction managers. In 2021, 45 emerging project managers were identified for leadership training. They are composed of early career (5-10 years of experience) construction managers within a large construction company in North America. Before training on leadership styles, a survey was conducted with the participants to identify their preferred leadership styles. The portion of the survey that studied participant leadership styles was composed of five questions. Unbeknownst to the participants, the five questions would be asked in two distinct situations. Situation 1 was a Regular Project (RP) in which the project team was efficient, and the project was on schedule. After answering the five questions for Situation 1, Situation 2 was presented. Situation 2 was composed of a stressful project, it was described as follows "*In contrast to Situation 1, the project team members seem to lack awareness about their responsibilities, the owner is frustrated, and this project has fondly been named the "Project from Hell" (PFH). It is plagued with all kinds of problems: delayed schedule, low morale, safety issues, design omissions, inexperienced subcontractors, government audits, and many scope changes.*

The participants responded to the questions with categorical responses that scaled across Autocratic, Democratic, and Laissez-Faire leadership styles; this method has been used in a previous study examining leadership styles among construction managers (Jung et al, 2014). Categorical variables were designed for the five questions to determine preferred leadership styles. These categorical responses across leadership styles presented a 3-point scale, similar to the Tannenbaun and Schmidt

(1973) study, which distinguishes leader/follower control between the three main leadership styles, see Figure 1. The following five questions were used to test participant leadership styles, their categorical response options can be observed in Tables 1 through 5.

1. How would you seek input from the project team on tough Project Management decisions?
2. How would you make the tough Project Management decisions?
3. How would you manage the project team member responsibilities?
4. How would you define and monitor project team member performance?
5. Who should drive the project team members?

To study the differences between the two situations. The null hypothesis for this study is that the project managers would select the same leadership styles for each of the two situations. The Alternative Hypothesis is that the project managers would select different leadership styles dependent on the situation. Both visual inspection and a paired sample t-test were conducted on the data to test the hypothesis.

## Data Analysis

The survey responses are presented in Tables 1-5. These unique tables were modified from tables presented in past research comparing leadership styles (Jung et al, 2014). These tables present the data in a way that provides a visual analysis of the differences between the two situations. Table 1 presents the first question and the percent of project managers that responded with the categorical response for Autocratic, Democratic, and Laissez-Faire. The differences between the two situations between the Regular Project (RP) and the Project from Hell (PFH) can be analyzed visually. As can be seen in Table 1, the Mean for the RP was 2.51, meaning the responses were between a Democratic and Laissez-Faire leadership style. However, the mean decreased to 2.07 in Situation 2. Upon visual inspection, a difference appears to exist with preferred leadership styles between the two different situations with all five questions.

Table 1					
<i>Question 1 Situational Difference with Seeking Project Team Input</i>					
How would you seek input from the project team on tough Project Management decisions?					
Available Responses	I wouldn't seek input from any of the project team members.	I would present solutions and invite input from all team members.	I would seek input from all team members on possible solutions.		
Scale	1	2	3		
	Autocratic	Democratic	Laissez-Faire	Mean	Stand. Dev.
<b>Situation 1 RP</b>	0%	49%	51%	2.51	0.50
<b>Situation 2 PFH</b>	20%	53%	27%	2.07	0.67

Table 2					
<i>Question 2 Situational Difference with Decision Making</i>					
How would you make the tough Project Management decisions?					
Available Responses	I would make necessary PM decisions and be sure that the team understands why I made the decision.	I would get input from the team, but I would retain the final decision-making authority.	I would seek input from all team members on possible solutions.		
Scale	1	2	3		
	Autocratic	Democratic	Laissez-Faire	Mean	Stand. Dev.
<b>Situation 1 RP</b>	20%	73%	7%	1.87	0.50
<b>Situation 2 PFH</b>	36%	62%	2%	1.67	0.52

Table 3					
<i>Question 3 Situational Difference with Managing Team Member Responsibilities</i>					
How would you manage the project team member responsibilities?					
Available Responses	I would assign the responsibilities to each team member and make a schedule for them to complete the items.	I would assign the responsibilities to each team member and ask each team member if they agree with their responsibilities or if we need to change any of them.	I would communicate what responsibilities are needed for the project and the team members knowing their strengths and weaknesses would decide on their responsibilities individually.		
Scale	1	2	3		
	Autocratic	Democratic	Laissez-Faire	Mean	Stand. Dev.
<b>Situation 1 RP</b>	33%	47%	20%	1.87	0.72
<b>Situation 2 PFH</b>	60%	22%	18%	1.58	0.77

Table 4					
<i>Question 4 Situational Difference with Defining and Monitoring Performance</i>					
How would you define and monitor project team member performance?					
	I would define team member performance expectations and I would monitor their performance.	I would have the team members define their performance expectations and have them monitor their individual performance and report their performance to me.	I would have the team members define and monitor their performance with little to no supervision from me.		
Scale	1	2	3		
	Autocratic	Democratic	Laissez-Faire	Mean	Stand. Dev.
<b>Situation 1 RP</b>	49%	51%	0%	1.51	0.50
<b>Situation 2 PFH</b>	80%	20%	0%	1.20	0.40

Table 5					
<i>Question 5 Situational Difference with Driving Performance</i>					
Who should drive the project team members?					
	I believe as the PM, I need to drive team members to work hard.	I believe team members should be self-driven and as the PM, I should only monitor progress.	I believe team members can drive themselves without any monitoring from myself as the PM.		
Scale	1	2	3		
	Autocratic	Democratic	Laissez-Faire	Mean	Stand. Dev.
<b>Situation 1 RP</b>	29%	71%	0%	1.71	0.50
<b>Situation 2 PFH</b>	62%	38%	0%	1.38	0.48

Upon conducting the paired two sample t-Test a significant difference between the responses for Situation 1 and Situation 2 was found in all five questions, see Table 6. The t stat was greater than the t-critical for all 5 questions, which means that we can reject the null hypothesis. The p-value was greater than 0.05 in all five tests, supporting the rejection of the null hypothesis. This means that a clear change of leadership style preference exists between the two situations.

<i>t-Test: Paired Two Sample for Means</i>										
	Question 1		Question 2		Question 3		Question 4		Question 5	
	<i>RP</i>	<i>PFH</i>	<i>RP</i>	<i>PFH</i>	<i>RP</i>	<i>PFH</i>	<i>RP</i>	<i>PFH</i>	<i>RP</i>	<i>PFH</i>
Mean	2.51	2.07	1.87	1.67	1.87	1.58	1.51	1.20	1.71	1.38
Variance	0.26	0.47	0.25	0.27	0.53	0.61	0.26	0.16	0.21	0.24
Observations	45	45	45	45	45	45	45	45	45	45
Pearson Correlation	0.292		0.518		0.578		0.489		0.497	
Hypot. Mean Diff.	0		0		0		0		0	
df	44		44		44		44		44	
t Stat	4.114		2.659		2.789		4.458		4.690	
P(T<=t) two-tail	0.000		0.011		0.008		0.000		0.000	
t Critical two-tail	2.015		2.015		2.015		2.015		2.015	

## Discussion

Although many construction projects don't go exactly as planned, situation one presents a project that is going as planned. The response to Situation 1 gives a base understanding of the preferred leadership style of the 45 participants. From the data analysis, we can infer that project managers prefer the Democratic leadership style. These findings align to the Mills and Jung (2012) study. Questions one and two are similar in that they deal with getting information to make difficult decisions in the workplace. Often, a project manager will seek decision making input as team diversity may help bring well rounded answers. The democratic style shares some of the authoritative power and focuses on building trust in their employees with decision making. In the ideal situation, the managers chose to get input on decision-making from their team members. Interestingly, many of the responses in questions one and two reflected Laissez-Faire leadership styles which contrasts with some research that suggests that a Laissez-faire leadership style is not appropriate in construction. This may be due to the nature of these two questions. Instead of dealing with hard productivity decisions, they instead only seek input. The PMs do not have to use any input given to them from their team, and no matter what they retain power in question one and two. Questions three and four reflected that the Laissez-Faire leadership style is not appropriate for assigning and monitoring individuals' roles and responsibilities. PMs should be more involved with assigning roles and responsibilities. Project managers use a democratic and autocratic approach to set obtainable goals and help provide feedback when needed. This democratic leadership approach will improve trust within their team members which will lead to higher commitment and increased job satisfaction. When the questions focus shifted to highlight aspects of a project which can heavily affect the team, such as providing feedback, PMs sought to maintain project control no matter the situation.

One can see that the 'Project from Hell' worksite situation had a large impact on the categorical responses with the early-career construction managers. When participants were asked about the PFH, the mean shifted towards the Autocratic leadership style on all five questions. PMs prefer a Democratic leadership style; however, when the project objectives are threatened, it forces them to be

more task-focused and demonstrate autocratic characteristics. In both tables one and two, the answers still favor democratic, though autocratic percentages do substantially increase. This reflects that when things get stressful, PMs do not seek as much input from others. As stated above, they may still ask their team members and use a democratic approach; however, final decision authority is theirs alone. During the PFH, PMs elected to retain more control on assigning responsibilities. This means followers are not going to have the ability to decide job responsibilities when the project objectives are threatened. When the project becomes stressful, the survey participants seem to rely heavier on their personal experiences. Finally, the perception that the construction manager must maintain motivation with their followers shifted from a team's responsibility to the leader's responsibility. The perception is that the leader needs to drive and motivate their team members on a stressful project. One can see this substantial shift in leadership ideology in the latter three questions. Although the autocratic leadership style will allow for quicker decisions in a stressful project there are several negative impacts that will impact their team members. The first negative impact on the team will be the morale, in contrast to the past, autocratic leadership is less acceptable for the younger workforce. Another negative impact will be the level of dependency on the leader will increase. By becoming more controlling, the PMs are giving up collaboration with their team members in favor of ensuring tasks are completed in a certain manner. Seasoned workers will be less likely to provide input in situations in which their voice is not heard.

## Conclusion

There is little research available in the construction industry with regards to the impact that leadership styles have on construction projects. A review of the past research on leadership styles in construction found three prior studies. Historically the construction manager has led with an autocratic leadership style, even though research has shown that the democratic leadership style is a more effective approach in construction. In addition, the preferred leadership styles have been studied with certain job roles, democratic leadership was found to be the preferred leadership style within the project management role, while autocratic leadership styles have been preferred with superintendent or safety positions. This paper presents the first study of how the situation impacts preferred leadership styles on the construction jobsite. Although the survey pool is limited to 45 early career project managers and the situations are hypothetical, the data provides a better understanding of the behaviors that will likely change when a project gets stressful. Further research can help contractors understand how the stressful nature of a project will impact leadership styles and combat the negative outcomes of leaders under stress.

The situation has an immediate impact on the preferred leadership style of emerging construction managers. This study examined two situations, one was a project that was going as planned and the other situation was referred to as the 'Project from Hell'. The objective was to find if there was a difference between preferred leadership styles in the two situations. There clearly was a difference between the two situations. The hypothesis that leadership styles differ between project situations was found to be true. The preferred leadership style includes a Democratic approach that incorporates team members strengths on the project. Construction Managers prefer that their team members are involved in decision making and selecting their responsibilities. The desire is that team members are motivated and want to be collaborative in the construction process. A more collaborative team has been found to be more successful and experience higher levels of employee satisfaction. However, in the more stressful project this study found that construction managers shifted their leadership style to a more Autocratic leadership style. The 'Project from Hell' observed more autocratic responses with seeking input from team members, making tough project decisions, managing team member



responsibilities, monitoring performance, and driving the project team members. Although the leader will focus more on the task at hand, the benefits of democratic leadership will decrease.

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