

**Shared Leadership and Team Performance: The Roles of Team Engagement and
Enjoyment**

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Abstract

Literature about the relationship between shared leadership and team performance shows contradictory findings. Research suggests that shared leadership is a better predictor of team performance than any other vertical leadership style, but that it can also have attenuating and negative effects on team performance. How team performance is influenced by shared leadership is still unclear. Therefore, this study aims to determine what causes shared leadership to be positively related to team performance. Specifically, it investigates whether team engagement and team enjoyment have an effect on team performance. An online questionnaire was sent to employees from varying working industries to test the hypotheses. Responses were analyzed using a regression analysis. We found that shared leadership and team engagement predict positive outcomes for team performance. Also, shared leadership seems to predict team engagement. Finally, we found some support for moderation of the shared leadership-team performance relationship at a high level of team enjoyment. These results suggest that shared leadership and team engagement are associated and positively and significantly predict team performance. Furthermore, the indirect relationship between shared leadership and team performance might be stronger when team enjoyment is high. These findings contribute to the literature about the effects that shared leadership, team engagement and enjoyment have on team performance. Considering this, efforts to improve team performance should take into account the concepts of shared leadership, team engagement, and team enjoyment.

Keywords: Shared Leadership, Team Performance, Team Engagement, Team Enjoyment

Shared Leadership and Team Performance: The Roles of Team Engagement and Enjoyment

The concept of shared leadership, defined as “an emergent team property that results from the distribution of leadership influence across multiple team members” (Carson, Tesluk & Marrone, 2007), has recently appeared in the literature and attracted great attention as a result of the growth of self-managed teams and decentralized organizational structures (Wu, Cormican & Chen, 2020). Furthermore, shared leadership is better at predicting team performance than any other type of more vertical leadership (e.g., Drescher, Korsgaard & Welpel, 2014; Han, Lee, Beyerlein & Kolb, 2018; Hoch, Pearce & Welzel, 2010). Therefore, shared leadership seems to be an important topic to pay further attention to.

The effects of shared leadership on team outcomes have been extensively studied (Han et al., 2018), but results are contested and conclusions contradictory. In fact, there are two competing perspectives. On the one hand, shared leadership has been related to positive outcomes such as performance and team creativity (e.g., Bergman, Rentsch, Small, Davenport, & Bergman, 2012; Konu & Viitanen, 2008; Wu et al., 2020) due to, for example, the adaptive characteristic of the leadership style (Han et al., 2018). On the other hand, shared leadership has been associated with harmful and negative consequences, like a decline in enjoyment, while having attenuating effects on performance (Evans, Sanner & Chiu, 2018). A reason for this is the lack of engagement in shared leadership practices such as granting influence (Evans et al., 2018; Han et al., 2018). However, few researchers have investigated the role of team engagement in positive shared leadership-team outcomes relationships.

Enjoyment, defined as the inherent interest and pleasure one receives from work (Evans et al., 2021), may also be valuable since it is associated with performance (e.g., Graves,

Ruderman, Ohlott, & Weber, 2012; Phillips & Chapman, 2011; Puca & Schamlt, 1999).

Enjoyment functions in such a way that individuals are intrinsically motivated to engage in tasks and have more cognitive resources available (Isen & Reeve, 2005). Enjoyment has also been associated with shared leadership (Evans et al., 2021), so enjoyment can be of importance in the relationship between shared leadership and team outcomes. However, no research has been found where enjoyment potentially strengthens the positive relationship between shared leadership and team outcomes.

We aim to fill these gaps by investigating the roles of team engagement and team enjoyment in the relationship between shared leadership and team outcomes. We chose to use team performance as the outcome variable since it is an outcome variable that is widely researched and there is already a body of research about it where the variable is linked to shared leadership (e.g., Drescher et al., 2014; Han et al., 2018; Hoch, Pearce & Welzel, 2010). To understand the mechanisms of leadership and team dynamics better, we used the Adaptive Leadership Theory (ALT; DeRue, 2011) and the Conservation of Resources Theory (CRT; Hobfoll, 1989) as theoretical frames to help us with this. In short, ALT explains how and when a shared leadership structure scheme (shared LSS)—the belief of individuals that their team should be collectively led by all team members—influences members' interactions and interpersonal obligations, and the CRT explains how those behaviors affect intrinsic and extrinsic outcomes.

We combine these theories in the theoretical model that we test via collected survey data from employees via an online questionnaire. Finally, we will conduct a regression analysis to test our hypotheses. We strive to gain new insights into the relationship between shared leadership and team performance and thus help develop a more robust understanding of team dynamics and outcomes.

Theory and hypotheses development

Shared Leadership: Definition and Prior Research

In our research, we define strong shared leadership as an emergent and dynamic team phenomenon in which leadership roles and influence, like offering guidance to other members, exerting leadership influence, participating in decision-making processes, and fulfilling traditional more vertical leadership tasks, are shared among all team members. We view this as the most useful concept, as it entails all of the themes of leadership stated by D'Innocenzo, Mathieu, and Kukenberger (2016; see their meta-analysis for a more detailed description). Our definition also highlights the important factors that shared leadership definitions entail: the significance of mutual, collective, and/or distributed leadership influence among multiple team members (see Wu et al., 2020). In addition, dyadic influence, i.e., team members must both lead and follow proactively for shared leadership to emerge, plays an important role in shared leadership structures (DeRue, 2011). Which member leads or follows depends on the demands of the situation and needs of the team because leadership, under the condition that it is shared, is developmental: a 'process' that is always changing and adaptive in dynamic contexts (DeRue, 2011). So, strong shared leadership is emergent and dynamic, and leadership is distributed among all team members.

Shared Leadership and Team Performance

As already stated, shared leadership teams seem to perform better in general than teams with a more vertical leadership structure. This can be a response to the dynamic and adaptive nature of shared leadership. According to DeRue (2011), shared leadership teams can adapt more effectively as the environment becomes increasingly dynamic due to the fluid and variable pattern of the emergence of leader and follower roles, which gives the opportunity for the team

member with the best fit for the situation to lead the team towards the best outcome regarding its needs. DeRue (2011) states that for this to happen, members of strong shared leadership teams must respect each other's skills, expertise, and ideas and effectively work together to, for example, make key decisions, which may have an additional positive effect on team performance. The positive shared leadership-team performance relationship may also be due to higher levels of team processes like mental model building (i.e., discussing the structure and the way to deal with situations that a team needs to handle), team learning, coordination, empowerment (Han et al., 2018), and team commitment (D'Innocenzo et al., 2016). Furthermore, Evans and colleagues (2021) explain that the interaction frequency is high in a shared leadership team, in which team members exchange resources like information. So, shared leadership may lead to higher team performance as a result of the adaptive and cooperative capabilities of shared leadership, the high interaction frequency in which resources are exchanged, and higher levels of team processes.

However, some scholars have found that shared leadership might lead to attenuated effects on team performance (Han et al., 2018). One reason for this is low engagement with the shared leadership structure. Han and colleagues (2018) theorize that when emergent and formal leaders acknowledged each other as having leadership roles, performance was higher, but not when they did not. Evans and colleagues (2021) suggest that the influence of some team members can be denied because members might not believe that they themselves or other members should lead. Also, the claimed negative links between shared leadership and performance might have not been explicitly tested since previous research on shared leadership is inconsistent in conceptualizing shared leadership and employing metrics or instruments to capture the leadership distribution (Han et al., 2018). So, while some results suggest a possible

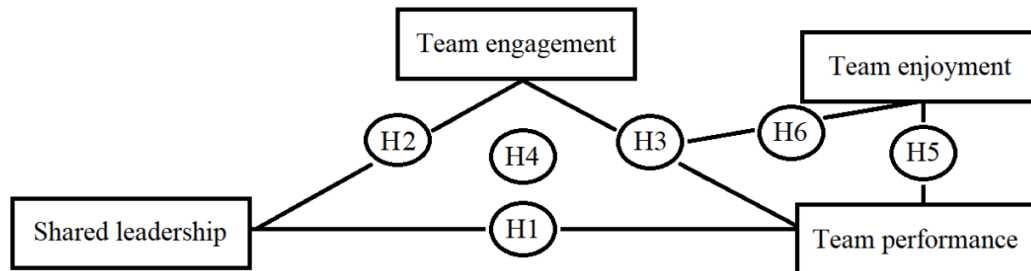
negative shared leadership-team performance relationship, it might be due to low engagement and differences in concepts and measurements.

In line with this theory, one would expect that, in general, strong shared leadership teams are better performing than teams with a more vertical leadership structure. It is suggested that members of strong shared leadership teams adapt and cooperate effectively, interact frequently, and experience team processes at a high level. Negative associations between shared leadership and team performance have been found, but these studies show discrepancies in measurement and the possibility of the nonexistence of a shared LSS among all team members. Based on these arguments and a large body of evidence, we put forward the following hypothesis (see Figure 1 for a visual representation):

Hypothesis 1: Shared leadership is associated with team performance.

Figure 1

Moderated Mediation Model



Shared Leadership and Team Engagement

According to the ALT, one would expect that team engagement is associated with shared leadership (DeRue, 2011). This is because, as stated before, all team members need to proactively switch between granting influence to others and becoming influenced by others in shared leadership teams for shared leadership to emerge. Since leadership is distributed across all

members in shared leadership teams, members are dependent on each other for these adaptive patterns of influence to make group decisions (DeRue, 2011). Therefore, every member should vary in leading and following in interactions, and the identities of leader and follower roles change consistently (DeRue, 2011). Interactions seem to be the means by which to do this, according to Evans and colleagues (2021). They, furthermore, state that shared leadership teams show a higher interaction frequency than more vertical leadership teams. Without engagement by all members, shared leadership is weak, which can result in a more vertical leadership structure, like distributed leadership, wherein there is less variability between team members in switching between leader and follower roles (DeRue, 2011). Thus, interaction frequency is likely to be high in shared leadership teams due to the need for all team members to proactively take part in the adaptive process of leading and following.

Hypothesis 2: Shared leadership is positively associated with team engagement.

Team Engagement and Team Performance

Team members of high-performing teams are likely to be more engaged with team processes. According to the CRT (Hobfoll, 1989), individuals have limited resources (e.g., time, attention, or energy) to use and, by engaging in interactions, they can exchange resources like information. This could be beneficial because members may have information that others in the team do not have. Through interactions, they can acquire other members' information and may have more control over the flow of information (Evans et al., 2021). This gives members more autonomy and thereby increases the extrinsic outcome of performance (Evans et al., 2021). Furthermore, with interactions, individuals may gain valuable information more quickly than they could receive by themselves, or otherwise, they may gain information that is not reachable by themselves. Members, for example, may receive information about a more effective way of

doing a task. So, more resources may be exchanged in teams with high engagement through interactions or team processes, which could result in higher team performance.

Hypothesis 3: Team engagement is positively associated with team performance.

Team Engagement as Mediator

High-performing shared leadership teams probably have high team performance due to team engagement. As we already explained, shared leadership predicts team performance, but for shared leadership to emerge, all team members must proactively claim and grant leadership via interactions (Evans et al., 2021). Without engagement in this proactive attitude, as we saw in previous research where negative relationships between shared leadership and team performance were found (Han et al., 2018), shared leadership and its positive effect on team performance cannot emerge. In line with this reasoning, one would expect that team engagement mediates the relationship between team performance and shared leadership.

Hypothesis 4: Team engagement mediates the relationship between shared leadership and team performance.

Team Enjoyment and Team Performance

As previously stated, scholars found that team enjoyment and team performance are associated. But Puca and Schamlt (1999) also found that task enjoyment appears to be linked to approach-oriented goal motives, which in turn may lead to performance. They suggest that when individuals have a performance-avoidance orientation, they experience lower task enjoyment. Whereas when individuals are performance-approach orientated, they experience increased task enjoyment (Puca & Schamlt, 1999). Having a performance-avoidance orientation, because of e.g., a fear of failure, may lead to ruminative thinking that reduces cognitive resources necessary for optimal performance (Puca & Schamlt, 1999). When individuals appear to perform well on

enjoyment, they have more cognitive resources available (Puca & Schamlit, 1999) and spend more time and effort on problem-solving at work (Oswald, Proto & Sgroi, 2015). This is due to the fact that these workers worry less and are less likely to feel the need to divert cognitive focus away from the activity at hand (Oswald et al., 2015). They also have less trouble with transferring their focus away from worrying (Oswald et al., 2015). Based on the aforementioned literature, one may claim that team enjoyment is associated with team performance.

Hypothesis 5: Team enjoyment is positively associated with team performance.

The Moderating Role of Team Enjoyment

We predict that teams making use of shared leadership reach high team performance because team members in shared leadership teams are engaged, and we believe that this indirect effect is stronger when team members are highly enjoying their being in the team. One reason for high levels of enjoyment in shared leadership teams can be the characteristic of high interaction frequency in these teams (Evans et al., 2021). The autonomy produced by frequent encounters provides the intrinsic motivation inherent in work enjoyment (Evans et al., 2021). Team members enjoy their work mostly because of the intrinsic drive they acquire through the autonomy they receive (Evans et al., 2021). This intrinsic outcome will in turn raise the available attention and effort to devote to problem solving at work (Oswald et al., 2015). Furthermore, team members will have more resources to exchange, so more information will be available in team processes, such as discussions. Therefore, the team will likely make better decisions. According to this logic, this paper predicts that when team enjoyment is high, shared leadership leads to higher team performance.

Hypothesis 6: Team enjoyment moderates the indirect relationship between shared leadership and team performance such that this relationship is stronger when team enjoyment is high.

Method

Participants

In this study, an online questionnaire was used, which was administered to 131 participants with different characteristics. Thirty seven (29.6%) of the 125 individuals who completed the selection phase were excluded because they did not match study criteria, as they worked less than 20 hours per week (24%) or did not work in a team (5.6%). Furthermore, an additional 18 participants failed to complete the questions for the shared leadership questions, and 41 participants failed to complete the whole survey, resulting in a final total of 47 participants.

The participants in this quantitative study were recruited by means of a random sampling. Individuals who were available for the current study at that time were used (Stangor, 2015). The participants were invited by students from a bachelor's group at the Faculty of Behavioral and Social Sciences with the purpose of testing various theories concerning team dynamics. Each student was instructed to send the questionnaire to companies with team structures from various sectors. The participants were required to be able to communicate in writing and reading in English or Dutch, be part of a work team, work a minimum of 20 hours a week in that team, and be older than seventeen years old. The participants work in a variety of industries, including, for example, health and social welfare (23.4%) and education and instruction (15.0%).

Of the participants, nineteen (40.4%) are male and twenty eight (59.6%) female. The age of the participants is between 21 and 66 years. The mean age is 42.5 years. The participants have

different nationalities, of which thirty six (76.6%) are Dutch and eleven (23.4%) have different nationalities. The participants differ in highest education degree, of which twenty (42.6%) have a university degree, fifteen (31.9%) a vocational degree, eight (17%) an intermediate vocational degree, one (2.1%) post-doctorate degree and one a secondary school diploma.

Procedure

This research was done as part of a broader project. This means that more variables have been tested than have been used. The data was gathered using an online questionnaire that participants could access through a personal link. The participants could complete this questionnaire at any given place. The researchers were available via email to answer any questions from the participants. The form of the researchers' presence was agreed upon in consultation with the participants. The data was collected in the period from May 15 to June 6. The link was no longer available after this time period. It was entirely voluntary to take part in this study, and participants were not compensated in any way for completing the questionnaire. The participants' confidentiality and security were ensured through informed consent. As a result, according to Stangor (2005), participants experience increased freedom of choice and reduced psychological stress. Prior to completing the questionnaire, the participants were given extensive information about the research's motivations, the questionnaire's non-committal nature, the questionnaire's course, data processing, confidentiality, and the project leader's contact information. The Ethics Committee of Psychology follows the National Ethics Council for Social and Behavioural Sciences' code of ethics for research involving human participants and approved our research. MSc. Roxana Bucur, lecturer at the Faculty of Behavioral and Social Sciences, is the principal investigator in this study. She is primarily responsible for the research's layout, distribution, and content.

Measures

For the measurement of the variables we tested on, we asked the participants to fill in a questionnaire wherein they should indicate to what extent they agree with the statements on the scale for each of the following variables. Answers were rated on a 7-point Likert scale, ranging from one (strongly disagree) to seven (strongly agree).

Shared Leadership

For the assessment of the extent of shared leadership in teams, we used an 18-item scale based on the one used in the research done by Hoch and colleagues (2010). The original scale of Hoch and colleagues (2010) included transformational, transactional, directive, empowerment on an individual level, empowerment on a team level, and aversive leadership. It was developed for measuring both shared and vertical leadership and sized 26 items. In our adapted version, we left the items about transactional and aversive leadership behavior out. Our adapted scale included items like: “My team members provide a clear vision of whom and what our team is”; “My team members and I work together to decide what my performance goals should be”; “My team members encourage me to search for solutions to my problems without supervision”; “My team members expect that the collaboration with the other members in the team works well” (see Appendix A, Shared Leadership Questionnaire). Cronbach’s alpha was .86 for the scale of Hoch and colleagues (2010) and .91 for our adapted measure.

Team Performance

For the measurement of the performance ratings of the teams of the participants, we also used an 18-item scale, but this time based on the measure of Van Der Vegt and Bunderson (2005), who derived their scale from Ancona and Caldwell (1992). The scale we used included items like: “All team members do the best they can to participate in discussions”; “Team

members share and receive criticism without making it personal”; “All team members consistently pay attention during group discussions”; “My team actively elicit multiple points of view before deciding on a final answer” (see Appendix A, Team Performance Questionnaire). Cronbach’s alpha was .87 for the derived scale of Van der Vegt and Bunderson (2005), .83 for the original scale of Ancona and Caldwell (1992) and .95 for our adapted measure.

Team Engagement

For measuring to what extent the work team of the participant is engaged with their work, we used a 15-item scale based on the questionnaire of Schaufeli, Salanova, González-Romá, and Bakker (2002). The scale included items like: “My team members feel bursting with energy at work”; “At work, my team members are mentally very resilient”; “My team members find their work full of meaning and purpose”; and “My team members find that time flies when they are working” (see Appendix A, Team Engagement Questionnaire). Cronbach’s alpha was .89 for our adapted scale.

Team Enjoyment

For the assessment of the degree of enjoyment by the teams we used a 7-item scale based on McMillan, Brady, O’Driscoll and Marsh’s (2002) adapted version of Spence and Robbin’s (1992) scale. The scale included items like: “My team members find their job so interesting that it often doesn't seem like work to them”; “My team members do more work than is expected of them strictly for the fun of it” (see Appendix A, Team Enjoyment Questionnaire). Cronbach’s alpha ranges from .84 to .89 for the scale of McMillan and colleagues (2002) and .84 for our adapted measure.

Control Variables

Given that we collected data from teams that may vary significantly, we considered a controlling variable to account for probable performance disparities related to task characteristics. We specifically looked at task complexity. According to D’Innocenzo and colleagues (2016), the advantages of shared leadership are more noticeable as task complexity rises. We measured task complexity with the 4-item scale developed by Maynard and Hakel (1997). The scale included items like: “I find tasks at my job to be complex” (see Appendix A, Task Complexity Questionnaire). Cronbach’s alpha was .90, measured by Maynard and Hakel (1997) and also by us.

Results

Assumptions Check

The assumptions we checked for are linearity, homoscedasticity, independence, absence of multicollinearity, and normality of the variance. We have also checked for outliers using Mahalanobis Distance and calculating the p-values of each Mahalanobis distance. No outliers have been found. We used a normal PP Plot of regression standardized residual for the linearity assumption and we found (moderate) linearity. We used a homoscedasticity scatterplot to reflect on homoscedasticity, the Durbin-Watson index to reflect on the independence of the variables and the Variance Inflation Factor (VIF) to reflect on the absence of multicollinearity (see Table 1). For the Durbin-Watson index, we found an index of 2.25. In the paragraph below, we explain how we tested the assumption test for normality. According to our output (see Appendix B), we assume that our variables pass the test for the assumption testing.

Table 1

Variance Inflation Factor

Collinearity Statistics

	Tolerance	VIF
Shared Leadership	.58	1.73
Team Engagement	.34	2.91
Team Enjoyment	.63	1.60
Task Complexity	.50	2.00

Note. Dependent Variable: Team Performance.

a. Predictors: (Constant)

To reflect on the assumption of normality, we used the Kolmogorov-Smirnov test and the Shapiro-Wilk test. As shown in Table 2, team performance, team engagement, and task complexity are significant on both the normality tests. However, team enjoyment was slightly nonsignificant on the Kolmogorov-Smirnov test and shared leadership was slightly nonsignificant on the Shapiro-Wilk test. Given these values, we further explored the data by looking at the plots (see Appendix B). It showed there was an overall normal distribution. Therefore, we conclude that the assumption of normality is marginally met and that the distribution seems acceptable. Hence, we did not proceed further with data transformation, but used parametric tests further in your analysis.

Table 2

Normality Tests

	Kolomogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Shared Leadership	.11	47	.20*	.95	47	.04
Team Performance	.09	47	.20*	.96	47	.09
Team Engagement	.09	47	.20*	.96	47	.32
Team Enjoyment	.14	47	.03	.96	47	.16

Task Complexity	.10	47	.20*	.96	47	.07
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Note. *. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Descriptive Statistics

The descriptive statistics and correlations of all the study variables are shown in Table 3. Almost all variables are positively and significantly correlated with a strong significance of $p > .01$. As shown, the correlation between team performance and team enjoyment ($r = .33$) and team performance and task complexity ($r = .44$) is slightly less significant ($p > .05$). Shared leadership is strongly correlated with team performance ($r = .70$). Team engagement is moderately correlated with team performance ($r = .62$). Remarkably, the means of shared leadership, team performance, team engagement, and task complexity are all slightly higher than the 7-point Likert scale mean. Team engagement scores are higher on average ($M = 4.92$, $SD = 1.09$) than the other variables. The average for task complexity is also high ($M = 4.88$, $SD = 1.41$), but the standard deviation is a bit higher. Shared leadership and team performance have nearly identical average scores, but shared leadership has a lower standard deviation ($M = 4.60$, $SD = .89$) than team performance ($M = 4.61$, $SD = 1.09$).

Table 3

Means, Standard Deviations and Correlations of the Variables

	N	Mean	SD	1	2	3	4
1. Shared Leadership	70	4.60	.89				
2. Team Performance	55	4.61	1.09	.70**			

3. Team Engagement	53	4.92	1.09	.67**	.62**		
4. Team Enjoyment	49	4.31	0.89	.50**	.33*	.69**	
5. Task Complexity	47	4.88	1.41	.38**	.44*	.60**	.50**

Note. ** $p < .01$, * $p < .05$.

Hypothesis Testing

A moderated mediation analysis was done on the data to investigate the effects of shared leadership on team performance through the mediating effects of team engagement and the moderating effects of team enjoyment. We calculated all the statistics with IBM SPSS Statistics for Windows and Hayes' PROCESS macro from 2012. The analysis' outcome variable was team performance, with shared leadership as the predictor variable, team engagement as the mediator variable, team enjoyment as the moderating variable, and task complexity as the covariate (see Figure 1 for a visual representation of the relationships). The extent to which the indirect relationship of shared leadership on team performance is influenced by team enjoyment and mediated by team engagement was investigated using bootstrapping (5,000 samples). The test corrects for biases in non-normally distributed values and is non-parametric.

The results of the regression indicated that the model explained 59.7% of the variance and that the moderated mediation model was a significant predictor of team performance, $F(5, 41) = 12.12, p < .00$ (see Table 4). Consistent with the primary hypothesis that shared leadership is associated with team performance, shared leadership emerged as a positive and significant predictor of team performance ($\beta = .69; p < .01$). Regarding our second hypothesis, shared leadership positively and significantly predicts team engagement ($\beta = .57; p < .01$) as shown in Table 5. So, H2 is supported meaning the existence of a positive relationship between shared

leadership and team engagement. Table 4 shows that our third hypothesis, which proposed a positive relationship between team engagement and team performance, is supported too. Team engagement is a positive and significant predictor of team performance ($\beta = .58$; $p = .01$).

Table 4

Results of PROCESS Moderated Mediation Analysis on Team Performance

Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	1.66	.92	1.80	.08	-.20	3.51
Shared Leadership	.69	.17	4.06	.00	.35	1.04
Team Engagement	.58	.21	2.71	.01	.15	1.01
Team Enjoyment	-.32	.18	-1.76	.09	-.67	.05
Interaction	.05	.11	.49	.63	-.16	.27
Task Complexity	-.10	.11	-.87	.39	-.33	.13

Note. Shared Leadership, Team Engagement, Team Enjoyment and Task Complexity are z-standardized.

Table 5

Results of PROCESS Regression Analysis on Team Engagement

Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>LLCI</i>	<i>ULCI</i>
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Constant	-2.33	.70	-3.35	.00	-3.7329	-.93
Shared Leadership	.57	.12	4.87	.00	.33	.80
Task Complexity	-.10	.09	-1.08	.29	-.29	.09

Note. Shared Leadership and Task Complexity are z-standardized.

Table 6 shows the indirect effect of shared leadership on team performance via the mediating variable team engagement. Inconsistent with our fourth hypothesis, no significant mediation has been found, so team engagement does not mediate the indirect relationship between shared leadership and team performance. Regarding our fifth hypothesis, which proposed that team enjoyment is positively related to team performance, we have found team enjoyment to be a nonsignificant negative predictor of team performance ($\beta = -.32$; $p = .09$; see Table 4). Our last hypothesis predicts that team enjoyment moderates the indirect relationship between shared leadership and team performance, such that this relationship is stronger when team enjoyment is high. As shown in Table 4, the interaction effect is weakly positive and slightly nonsignificant ($\beta = .05$; $p = .63$), however we have support for H6 with an indication of significance at high level of the moderator (see Table 6), but this should be interpreted with caution as the overall index of moderated mediation (see Table 7), and the pairwise contrasts (see Table 8) are not significant. Further research is needed to fully confirm the moderated mediation hypothesis.

Table 6

Results of indirect effects of Shared Leadership on Team Performance

Effect	Effect	BootSE	BootLLCI	BootULCI
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Total Indirect	.13	.12	-.05	.42
Team Enjoyment 1	.30	.17	-.00	.68
SD Under Mean				
Team Enjoyment At	.33	.16	.08	.69
Mean				
Team Enjoyment 1	.35	.16	.09	.75
SD Above Mean				

Note. Shared Leadership, Team Engagement, Team Enjoyment and Task Complexity are z-standardized.

Table 7

Results of overall index of moderated mediation

	Index	BootSE	BootLLCI	BootULCI
Team Enjoyment	.03	.07	-.07	.20

Note. Shared Leadership, Team Engagement, Team Enjoyment and Task Complexity are z-standardized.

Table 8

Results of Pairwise Contrasts Between Conditional Indirect Effects

Effect 1	Effect 2	Contrast	BootSE	BootLLCI	BootULCI
.33	.30	.03	.07	-.07	.18

.35	.30	.05	.13	-.14	.36
.35	.33	.03	.06	-.07	.18

Note. Shared Leadership, Team Engagement, Team Enjoyment and Task Complexity are z-standardized.

Discussion

This paper investigated the joint role of shared leadership, team engagement and team enjoyment for team performance. We found that shared leadership appears to be a strong, significant, and positive predictor of team performance (H1 is supported) and team engagement (H2 is supported). Furthermore, we found that team engagement is positively and significantly associated with team performance (H3 is supported), but the data does not support the mediating effect of team engagement on the shared leadership-team performance relationship (H4 is not supported). Moreover, team enjoyment does not appear to have a significant and positive predictive effect on team performance (H5 is not supported). Lastly, we have support that team enjoyment moderates the indirect relationship between shared leadership and team performance at a high level (H6 is partially supported). This last outcome should be interpreted with caution.

Theoretical Implications

These findings imply that there is indeed a positive relationship between shared leadership and team performance. This is in line with the already large body of evidence that suggests this relationship (e.g., Drescher et al., 2014; Han et al., 2018; Hoch et al., 2010). As already mentioned, shared leadership is found to be a better predictor of team performance than any other type of leadership style. An example of this can be that shared leadership structures give the chance for team processes to happen, like team learning, coordination, empowerment, and mental model building (Han et al., 2018). Because of team processes, team members can

bring more resources to the task, and there is more information available during decision making. This affects team outcomes (D’Innocenzo et al., 2016). Another explanation can be the adaptive nature of shared leadership, since the emergence of following and leading by team members goes fluently and implicates more variance (DeRue, 2011). And so in strong shared leadership teams, the member(s) that have the best capabilities for handling certain situations lead the team. The high interaction frequency of members of shared leadership teams also contributes to our findings. Because team members interact with each other, they exchange their resources, which in turn leads, according to the CRT (Hobfoll, 1989), to positive outcomes. Thus, when taking previous literature and our theoretical approach and findings into account, one can conclude that the more a team uses shared leadership, the better it performs..

The findings regarding our second hypothesis, as illustrated above, imply that there is a positive and significant relationship between shared leadership and team engagement. Previous literature implies the same, so our findings add confirmation to previous research. For example, the ALT predicts that shared LSS encourages team members to interact frequently (DeRue, 2011). Furthermore, it explains that all shared leadership team members must have proactive attitudes towards adaptive patterns of leading and following and that these members actively follow others and grant leadership to each other. Concluded, the more teams use shared leadership, the more their working environments seem to foster engagement.

As our results regarding our third hypothesis tell us, team engagement is also positively associated with team performance. When team engagement is high, members interact more often with each other, and, as previously mentioned, members exchange resources in interactions (Evans et al., 2021). So team members gain information from interactions, and thereby, interactions increase the extrinsic outcomes of performance. However, our results do not support

the notion that team engagement mediates the shared leadership-team performance relationship. This contradicts our fourth hypothesis. It seems unlikely to assume that there is no mediating effect of team engagement since all members have to engage in the act of leading and following for shared leadership and its positive effect on team performance to emerge (DeRue, 2011). Furthermore, the study of Evans and colleagues (2021) shows us that the nonexistence of team engagement causes attenuation of the shared leadership-team performance relationship and can even lower enjoyment. So, we have found evidence that team engagement positively predicts team performance, but no evidence whatsoever has been found that team engagement mediates the effect of shared leadership on team performance.

The results of our fifth hypothesis imply that team enjoyment does not have a positive effect on team performance. This contradicts previous research that suggests the association between task enjoyment and team performance (e.g., Graves, Ruderman, Ohlott, & Weber, 2012; Phillips & Chapman, 2011; Puca & Schamlt, 1999). It also contradicts our hypothesis, which was based on the main reasoning that individuals with high task enjoyment have more cognitive resources available. A reason for this contradiction could be that we used a small sample, and so we had low power. Since the previous research investigated enjoyment on an individual level, our findings add more understanding of enjoyment on a team level.

Our last main finding was that a high level of team enjoyment moderates the indirect shared leadership-team performance relationship, but this should be interpreted cautiously. A reason for not getting full support for our hypothesis is that we conceptualized team enjoyment as a variable that moderates only the mediating effect of team engagement on the shared leadership-team performance relationship. But, according to Isen and Reeve (2015), task enjoyment makes individuals intrinsically motivated to engage in tasks. So, not regressing team

enjoyment as a moderator of the shared leadership-team engagement relationship may be the cause of the marginal support of H6. No other research has been found that investigates team enjoyment as a moderator in the indirect relationship. However, Evans and colleagues (2021) found that shared leadership can have attenuating effects on performance and declining effects on enjoyment with low peer engagement. Here, enjoyment is investigated at team level and as an outcome. Our findings extend the literature such that enjoyment may be seen as a significant moderator when it is at a high level. Moreover, it supports the main argument that team enjoyment provides intrinsic motivation, which increases available attention and effort for tasks at hand. It also makes team members more engaged and exchange more resources in the many interactions taking place in shared leadership teams.

Practical Implications

The present findings indicate that shared leadership seems particularly important in predicting team performance. By sharing leadership roles, the team may perform highly. Team engagement and enjoyment are factors to take into account when attempting to improve team performance in shared leadership teams. A team that shares leadership may foster team engagement, and team engagement might have higher team performance as a result. High performance may also be the result of high team enjoyment. And through experiences of high enjoyment, team enjoyment may strengthen the indirect shared leadership-team performance relationship. Hence, team engagement and enjoyment play important roles in teams with a strong shared leadership structure. Corporations might profit from encouraging shared leadership and team engagement and enjoyment in these teams, for example, by praising or emphasizing this behavior in their leadership development initiatives. Implementing shared leadership and improving team engagement and enjoyment could lead the team to make better decisions and

come up with better solutions. Educational institutions may also benefit from this implementation and improvement since students tend to work in teams.

Strengths and Limitations

An important strength of this study is that we investigated the moderating effect of enjoyment. No research has been found wherein enjoyment is theorized as a moderator of the association between shared leadership and team performance. Furthermore, previous literature found an indirect shared leadership and individual performance relationship wherein individual engagement mediates the relationship, but no research has been done on the effect of shared leadership on team performance with a mediating effect of engagement on team level. Since our subject is relevant as a result of the upcoming trend of shared leadership usage and research concept, we fill in an important gap. Another strength of this research is that our data sample was diverse, such that participants worked in different sectors and differed in gender, age, and seniority in their organization. Finally, the scales we used for measurement have high reliability and are used in peer-reviewed studies.

Nevertheless, there are some limitations that deserve to be addressed. Consistent with prior research, we measured team performance based on self-reported ratings by team members, rather than archival or objective measures. Self-reported ratings may suffer from contamination effects, whereas objective and archival measures do not (D’Innocenzo et al., 2016). Also, the measurement of our variables was based on individual ratings of the team, rather than combining the ratings of the whole team and potential supervisors. In addition, our sample size was somewhat small because participants dropped out before finishing the questionnaire more often than we think is usual. A reason for this could be that the questionnaire was long (circa 25 minutes of completion time) and there was no compensation given. Participants were also

filtered out because of not meeting the selection criteria. This may lower the power of our results.

Future Research Directions

It might be beneficial to consider objective or archival measurement of team performance. We also suggest combining the data of all team members and potential supervisors for more confidence in the findings regarding analyses of team level variables. Additionally, a larger sample size would give more power and might reveal a significant mediating effect on team engagement. We have support for moderation of the mediating effect of team engagement on shared leadership-team performance relations but no significant mediating effect.

Furthermore, we have found a significant and positive relationship between shared leadership and team performance, but there is also research that suggests a negative relationship. This may be as a result of low levels of team enjoyment and engagement. The means of our data of team enjoyment and team engagement were moderately high. It is therefore recommended that further research be conducted to investigate the effect of shared leadership on team performance in teams with high and low team engagement and high and low team enjoyment. Moreover, for stronger outcomes, team enjoyment should also be investigated as a moderator of the shared leadership-team engagement relationship when team enjoyment is high. This is because enjoyment is linked to engagement such that enjoyment intrinsically motivates engagement (Isen & Reeve, 2015). Lastly, D’Innocenzo and colleagues (2016) argue that the observed results of shared leadership research may be significantly influenced by differences between study features. In their meta-analysis, they outline multiple important differentiating factors that might function as possible moderator variables for future shared leadership research.

Conclusion

The purpose of this study was to identify the effects of leadership mechanisms and team dynamics on team outcomes. Given a quantitative analysis of team performance as a response to shared leadership, it can be concluded that shared leadership has a positive relationship with team performance and that, taken with caution, a high-level of team enjoyment moderates this mediated relationship. Furthermore, it appeared that shared leadership has a positive association with team engagement and that team engagement positively relates to team performance. The findings reflect that shared leadership predicts team performance and that this prediction is more strongly supported when team enjoyment is high. Shared leadership also anticipates that team members are engaged in team processes, and team engagement seems to be a predictor of team performance. Further research is needed to determine the mediating effects of team engagement and conceptual replication of the moderating effects of team enjoyment in the indirect shared leadership-team performance relationship to achieve a clearer understanding of the effect of shared leadership on team outcomes.

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Appendix A

Measures

Shared Leadership Questionnaire

1. My team members provide a clear vision of whom and what our team is.
2. My team members are driven by higher purposes or ideals.
3. My team members show enthusiasm for my efforts.
4. My team members encourage me to rethink ideas which had never been questioned before.
5. My team members seek a broad range of perspectives when solving problems.
6. My team members encourage me to go above and beyond what is normally expected of one (e.g., extra effort).
7. My team members decide on my performance goals together with me.
8. My team members and I work together to decide what my performance goals should be.
9. My team members and I sit down together and reach agreement on my performance goals.
10. My team members work with me to develop performance goals.
11. My team members encourage me to search for solutions to my problems without supervision.
12. My team members urge me to assume responsibilities on my own.
13. My team members encourage me to learn new things.
14. My team members encourage me to give myself a pat on the back when I meet a new challenge.

15. My team members encourage me to work together with other individuals who are part of the team.
16. My team members advise me to coordinate my efforts with the others, who are part of the team.
17. My team members urge me to work as a team with the others, who are part of the team.
18. My team members expect that the collaboration with the other members in the team works well.

Team Performance Questionnaire

1. All team members do the best they can to participate in discussions.
2. When team members have different opinions, each member explains his or her point of view.
3. Team members encourage one another to express their opinions and thoughts.
4. Team members share and receive criticism without making it personal.
5. Different points of view are respected by team members.
6. Often members help a fellow team member to be understood by paraphrasing what he or she is saying.
7. My team uses several techniques for problem solving with each team member presenting his or her best ideas.
8. Team members work to come up with solutions that satisfy all members.
9. All team members consistently pay attention during group discussions.
10. My team actively elicit multiple points of view before deciding on a final answer.
11. Team members listen to each other when someone expresses a concern about individual or team performance.

12. Team members willingly participate in all relevant aspects of the team.
13. Team members resolve differences of opinion by openly speaking their mind.
14. Team members use feedback about individual or team performance to help the team be more effective.
15. Team members seem attentive to what other team members are saying when they speak.
16. My team resolves many conflicts by compromising between team members, with each one giving in a little.
17. Members who have different opinions explain their point of view to the team.
18. Team members are recognized when something they say helps the team reach a good decision.

Team Engagement Questionnaire

1. My team members feel bursting with energy at work.
2. My team members always persevere at work, even when things do not go well.
3. My team members can continue working for very long periods at a time
4. At work, my team members are mentally very resilient.
5. At work, my team members feel strong and vigorous.
6. My team members find their job challenging.
7. My team members are inspired by their work.
8. My team members are enthusiastic about their work.
9. My team members are proud of the work that they do.
10. My team members find their work full of meaning and purpose.
11. When my team members are working, they forget everything else around them. Even if it is just for a short period of time.

12. My team members find that time flies when they are working.
13. My team members get carried away when working.
14. It is difficult to detach my team members from their work.
15. My team members are immersed in their work.

Team Enjoyment Questionnaire

1. My team members find their job so interesting that it often doesn't seem like work to them.
2. My team members find their job more like fun than actual work.
3. Most of the time my team members find their work very pleasurable.
4. Sometimes my team members can hardly wait to get to work when they get up in the morning.
5. Members of my team like their work more than most people do.
6. My team members seldom find anything to enjoy about their work. (Needs to be reverse-coded for the analysis.)
7. My team members do more work than is expected of them strictly for the fun of it.

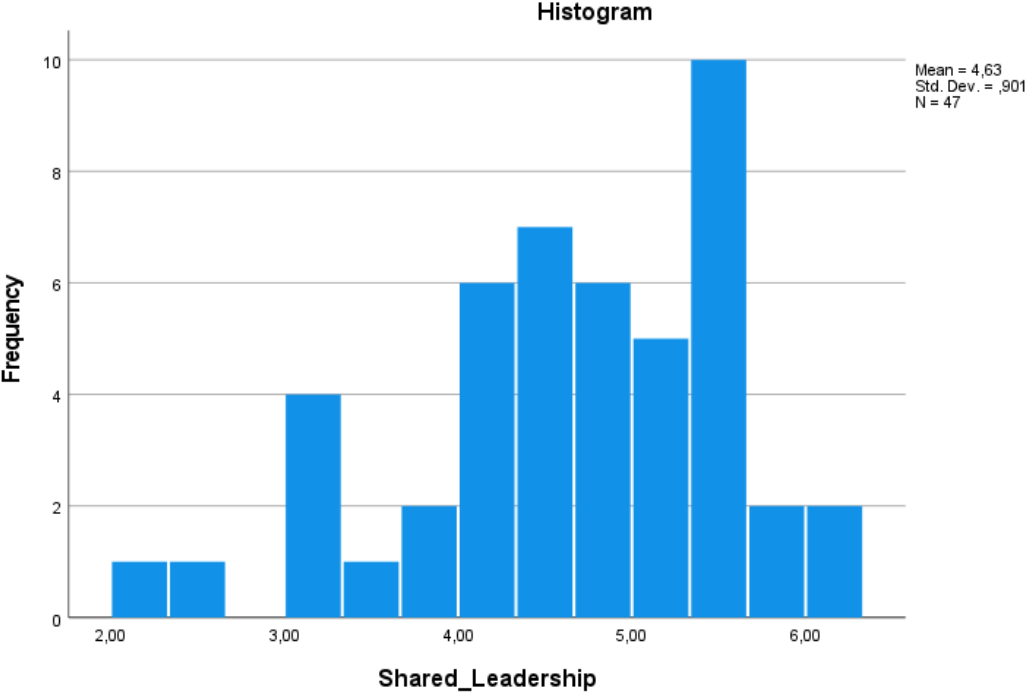
Task Complexity Questionnaire

1. I find tasks at my job to be complex.
2. The tasks at my job are mentally demanding.
3. The tasks at my job require a lot of thought and problem solving.
4. I find the tasks at my job to be challenging.

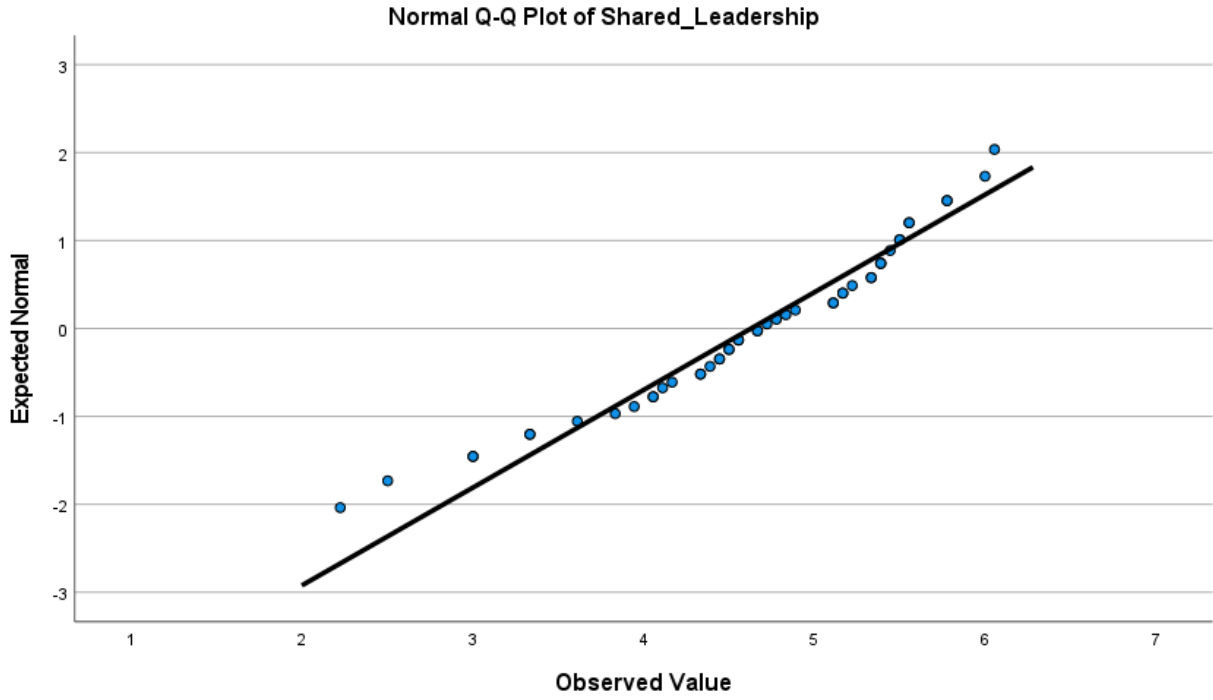
Appendix B

Data Output

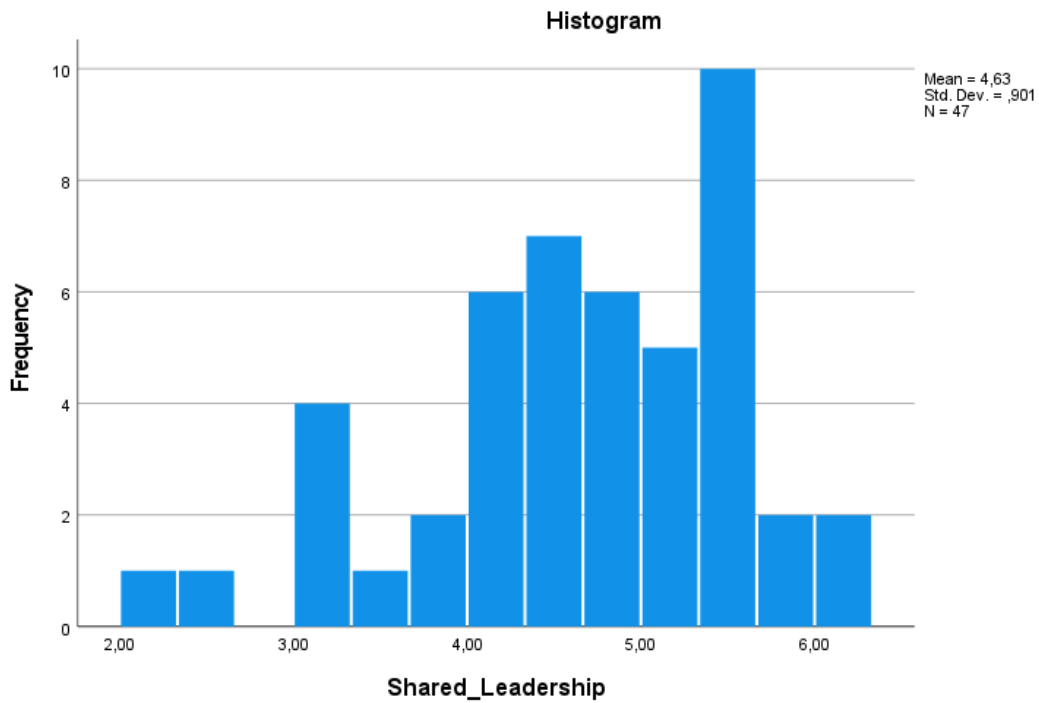
Histogram of Shared Leadership



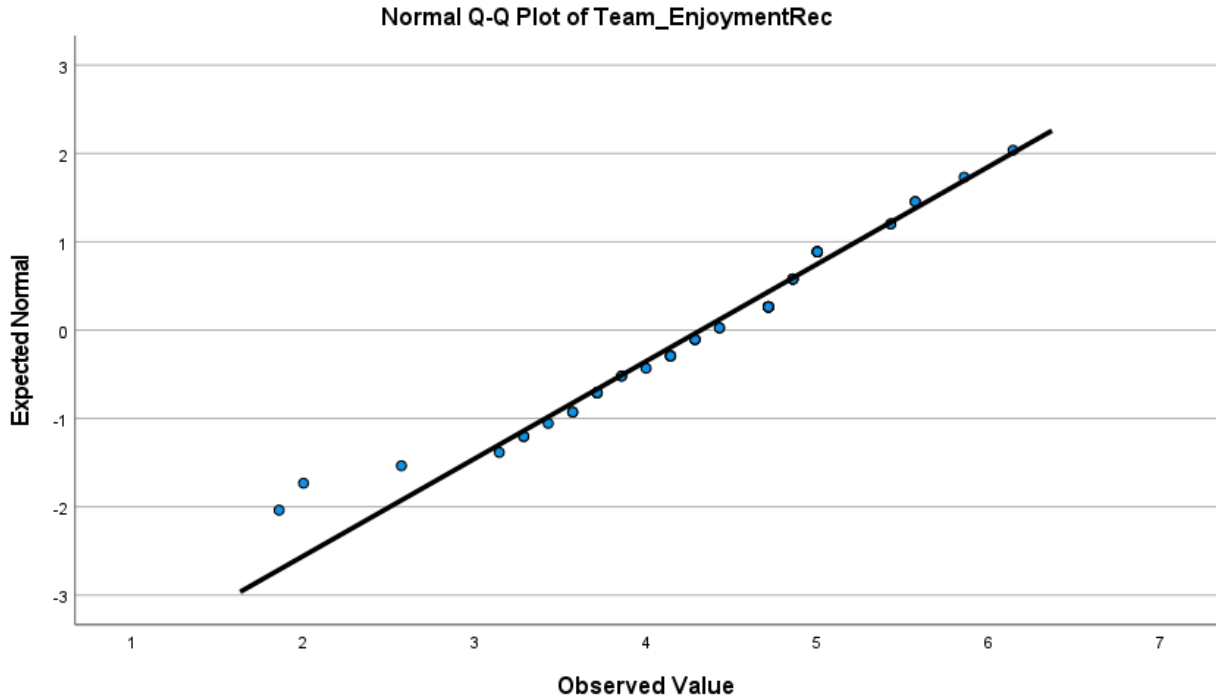
Normal QQ-Plot of Shared Leadership



Histogram of Team Enjoyment



Normal QQ-Plot of Team Enjoyment



P Value Mahalanobis Distance

Statistics

pValueMahalanobis

N	Valid	47
	Missing	43
Mean		,5306069
Std. Deviation		,30924906
Minimum		,00580
Maximum		,99491

Output (Only) for Durbin-Watson Index

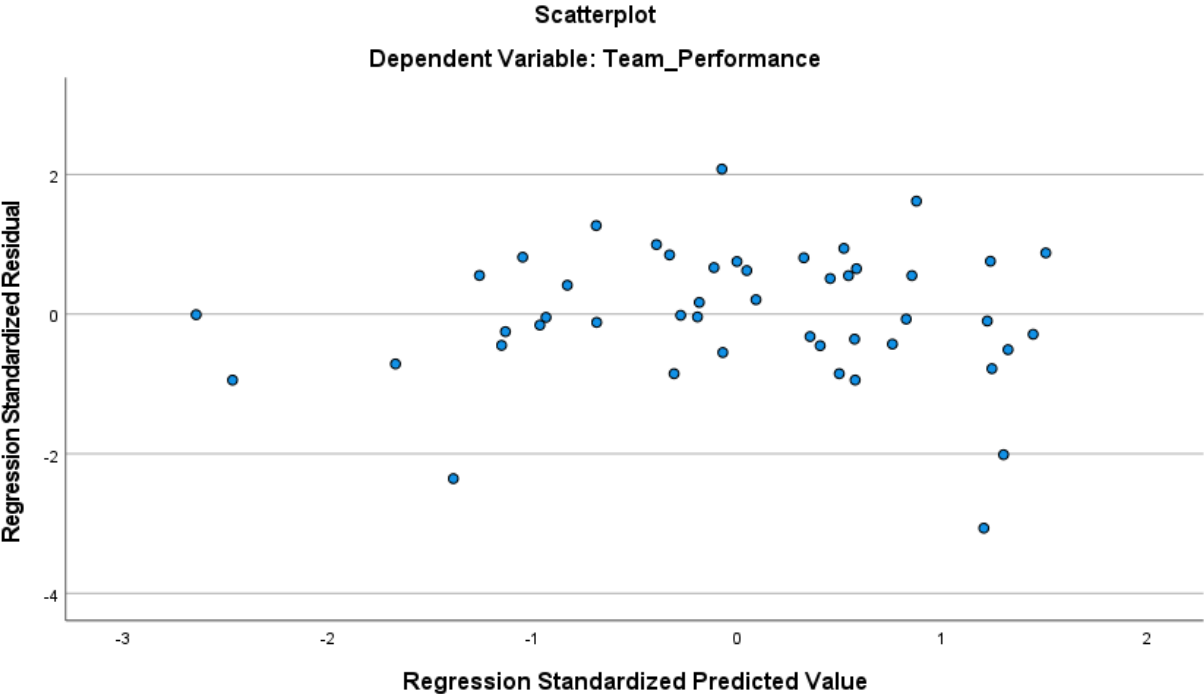
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,776 ^a	,601	,563	,76259	2,252

a. Predictors: (Constant), Task_Complexity, Shared_Leadership, Team_Enjoyment, Team_Engagement

b. Dependent Variable: Team_Performance

Scatterplot with all Variables Regressed on Team Performance



Correlations

		Correlations				
		Shared_Leadership	Team_Performance	Team_Engagement	Task_Complexity	Team_Enjoyment
Shared_Leadership	Pearson Correlation	1	,702**	,667**	,378**	,501**
	Sig. (2-tailed)		<,001	<,001	,009	<,001
	Sum of Squares and Cross-products	54,633	36,669	25,848	22,084	18,912
	Covariance	,792	,679	,497	,480	,394
	N	70	55	53	47	49
Team_Performance	Pearson Correlation	,702**	1	,619**	,439**	,328*
	Sig. (2-tailed)	<,001		<,001	,002	,021
	Sum of Squares and Cross-products	36,669	63,697	29,573	32,924	15,940
	Covariance	,679	1,180	,569	,716	,332
	N	55	55	53	47	49
Team_Engagement	Pearson Correlation	,667**	,619**	1	,600**	,693**
	Sig. (2-tailed)	<,001	<,001		<,001	<,001
	Sum of Squares and Cross-products	25,848	29,573	35,995	33,346	24,904
	Covariance	,497	,569	,692	,725	,519
	N	53	53	53	47	49
Task_Complexity	Pearson Correlation	,378**	,439**	,600**	1	,501**
	Sig. (2-tailed)	,009	,002	<,001		<,001
	Sum of Squares and Cross-products	22,084	32,924	33,346	91,606	29,505
	Covariance	,480	,716	,725	1,991	,641
	N	47	47	47	47	47
Team_Enjoyment	Pearson Correlation	,501**	,328*	,693**	,501**	1
	Sig. (2-tailed)	<,001	,021	<,001	<,001	
	Sum of Squares and Cross-products	18,912	15,940	24,904	29,505	38,203
	Covariance	,394	,332	,519	,641	,796
	N	49	49	49	47	49

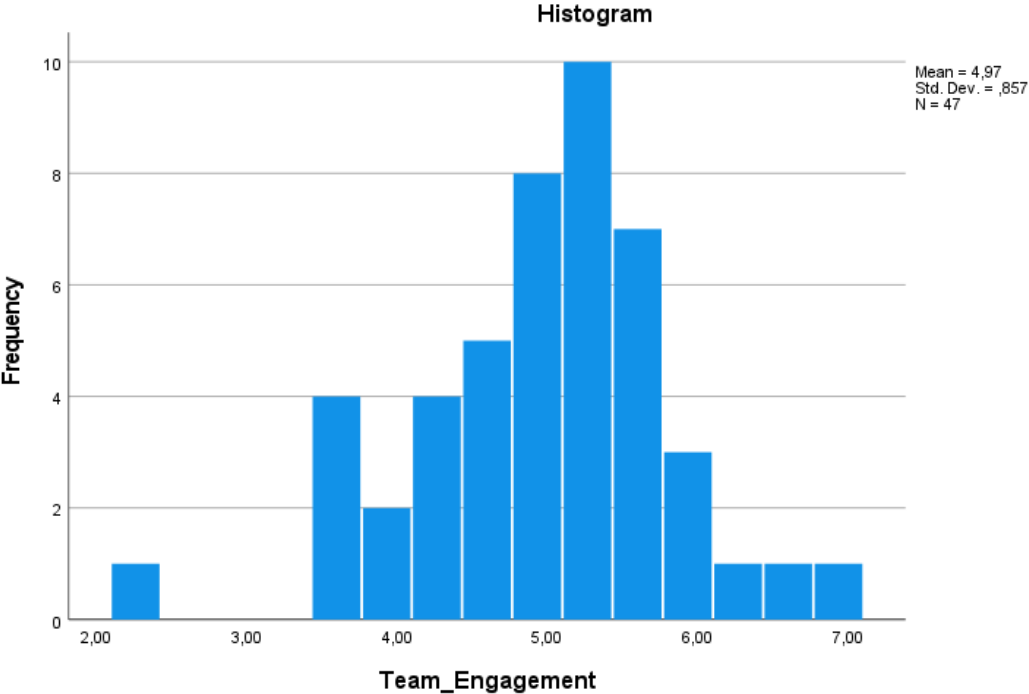
** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

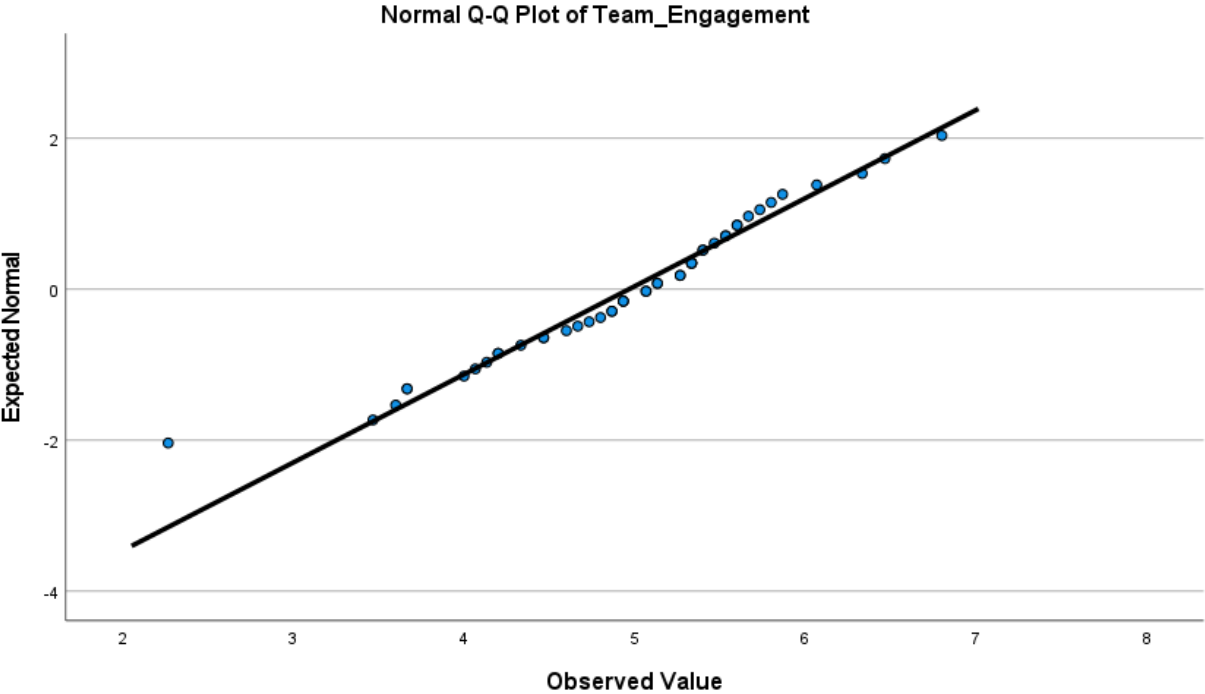
Boxplot Team Enjoyment



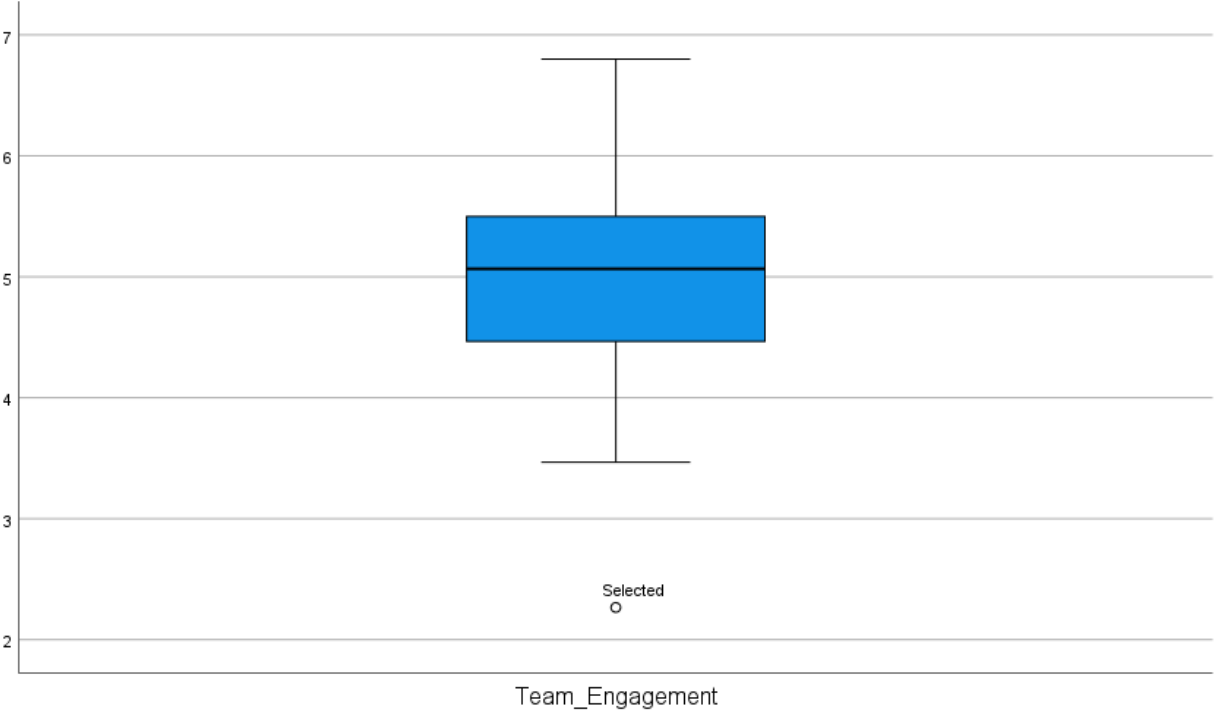
Histogram Team Engagement



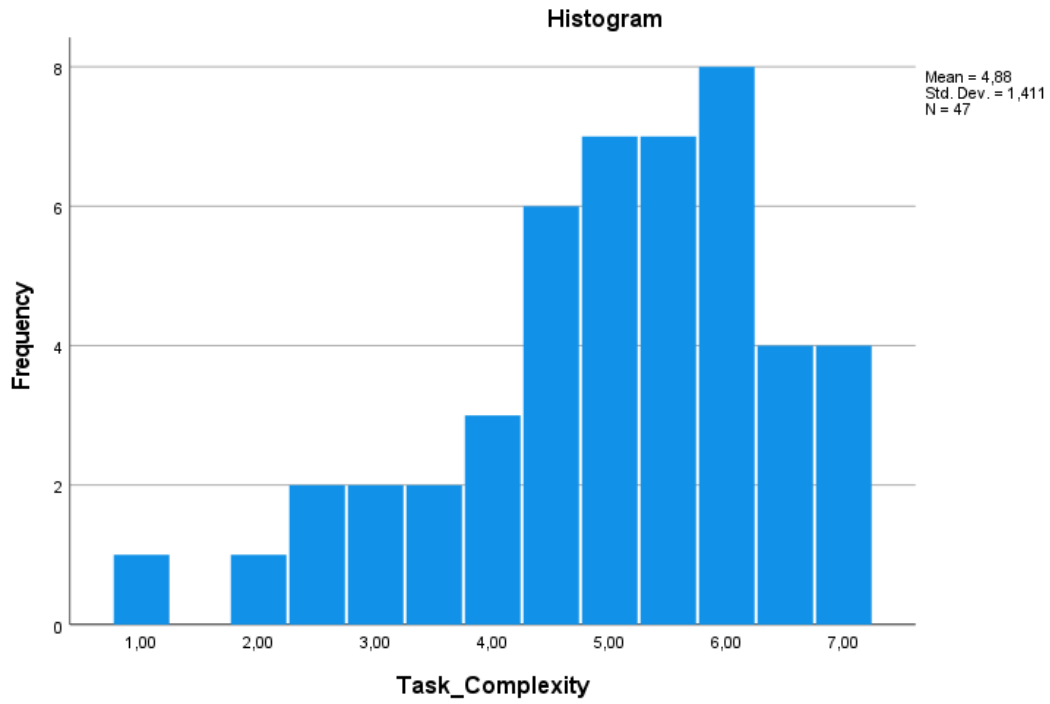
QQ Plot Team Engagement



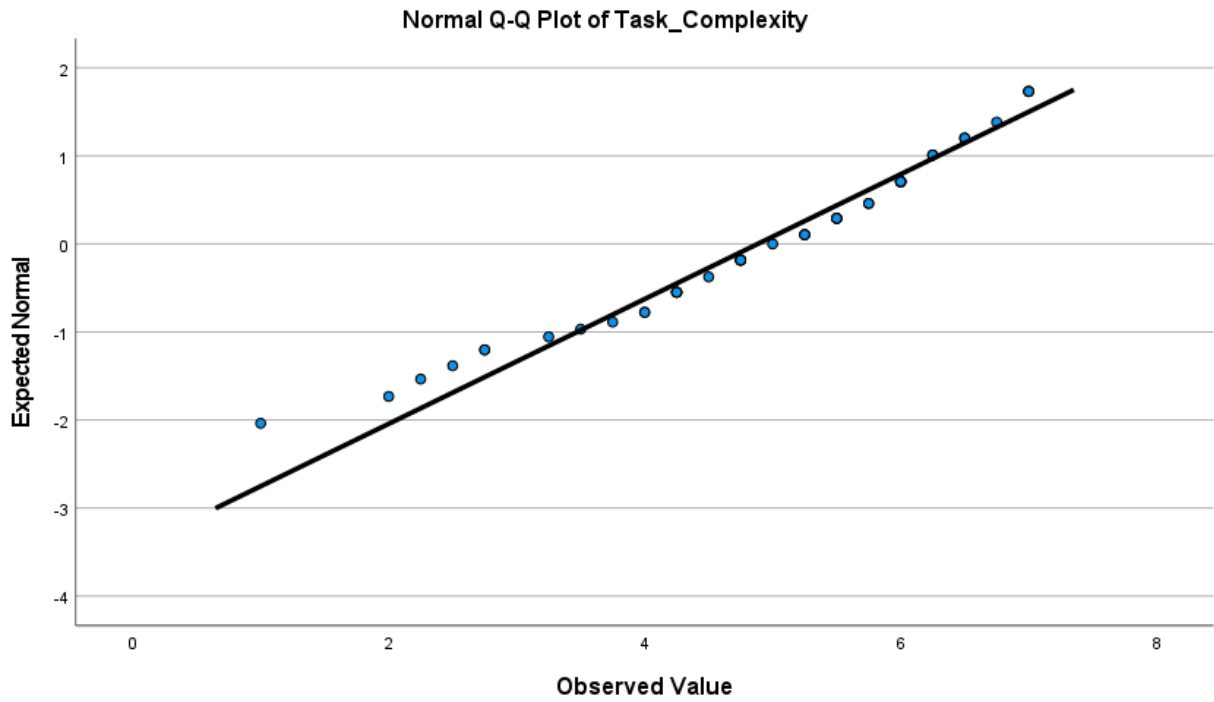
Boxplot Team Engagement



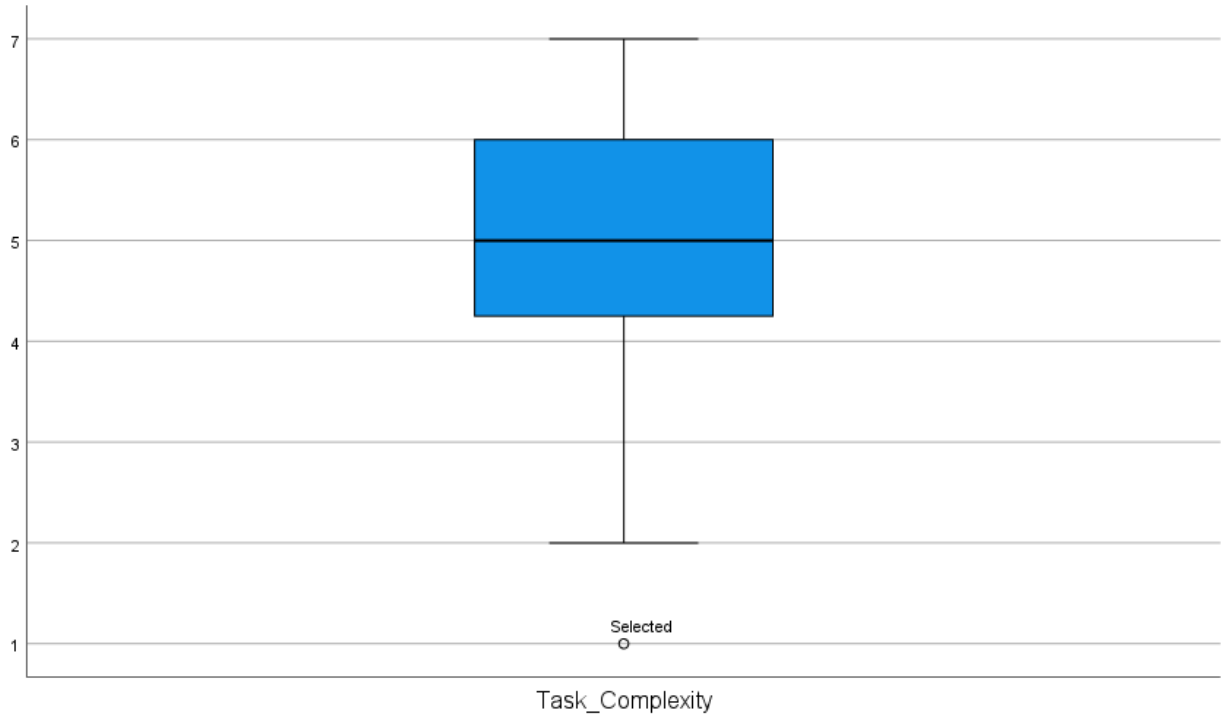
Histogram Task Complexity



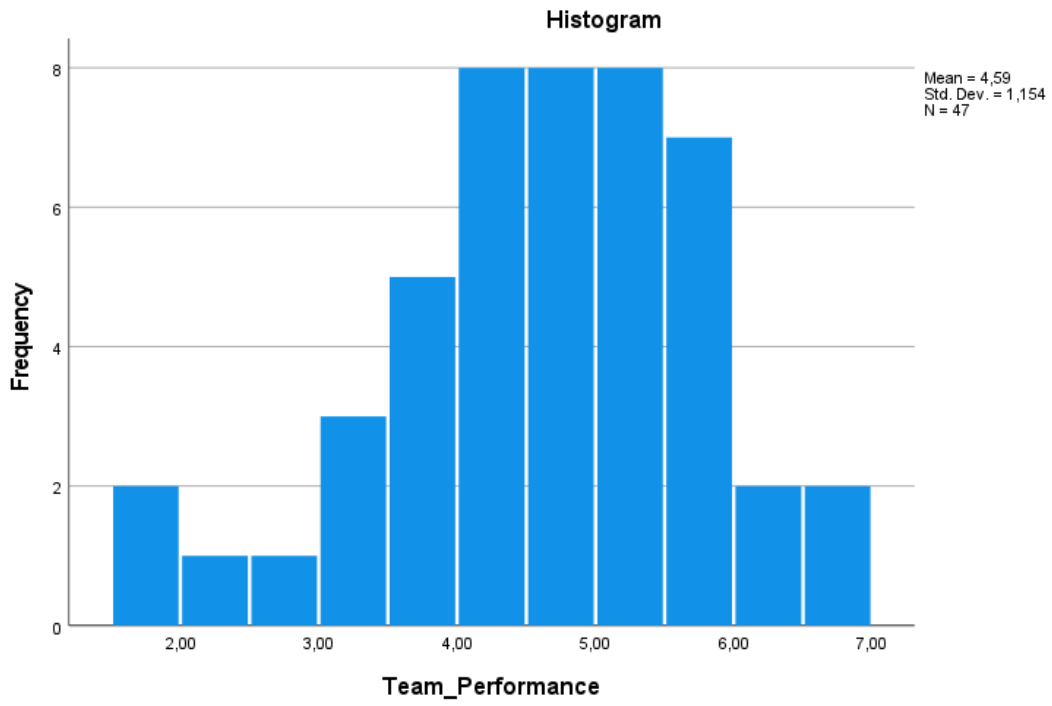
QQ Plot Task Complexity



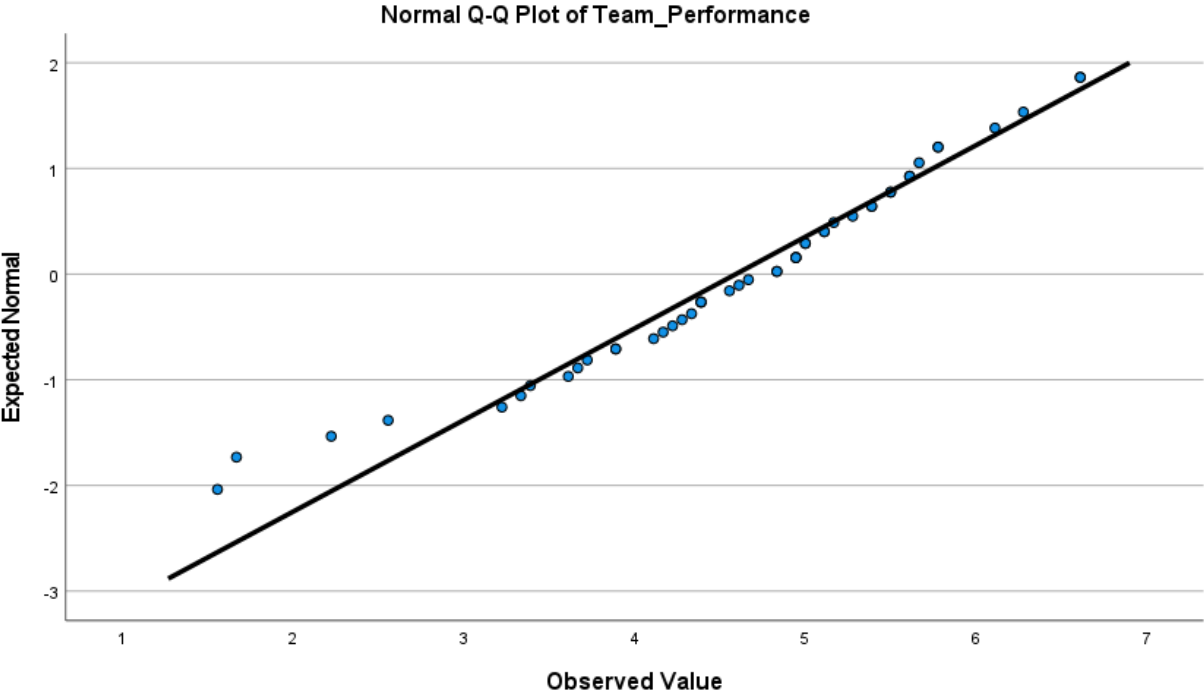
Boxplot Task Complexity



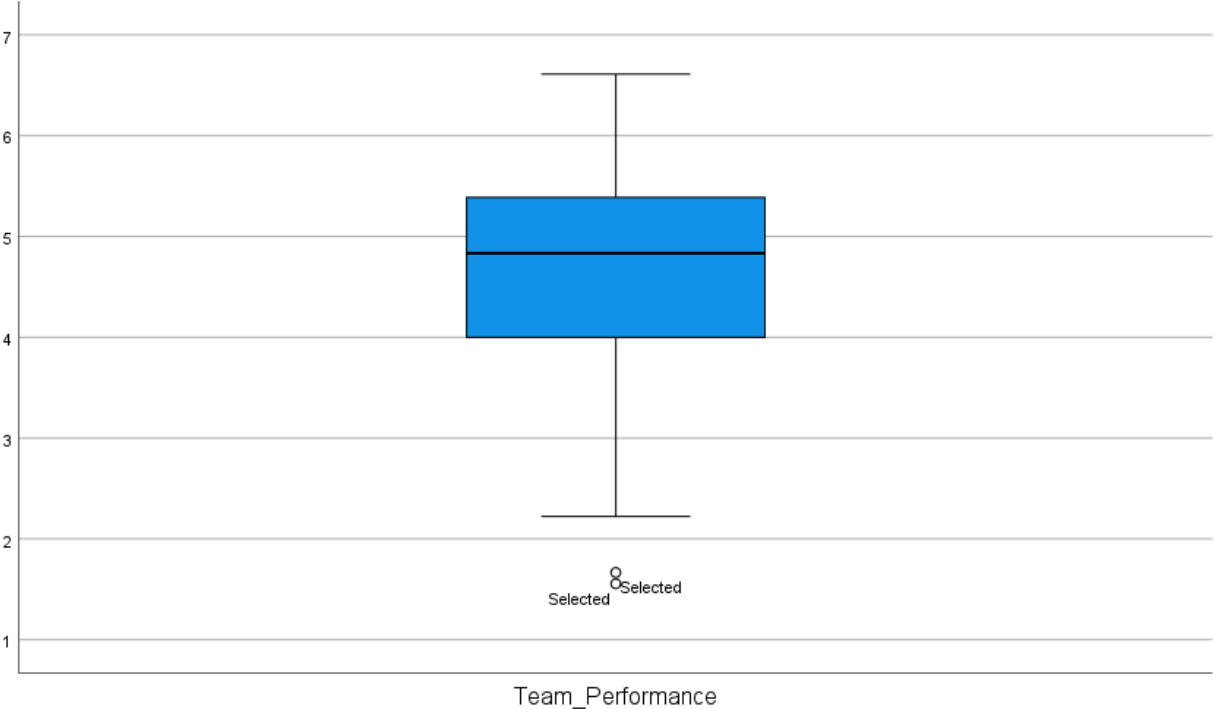
Histogram Team Performance



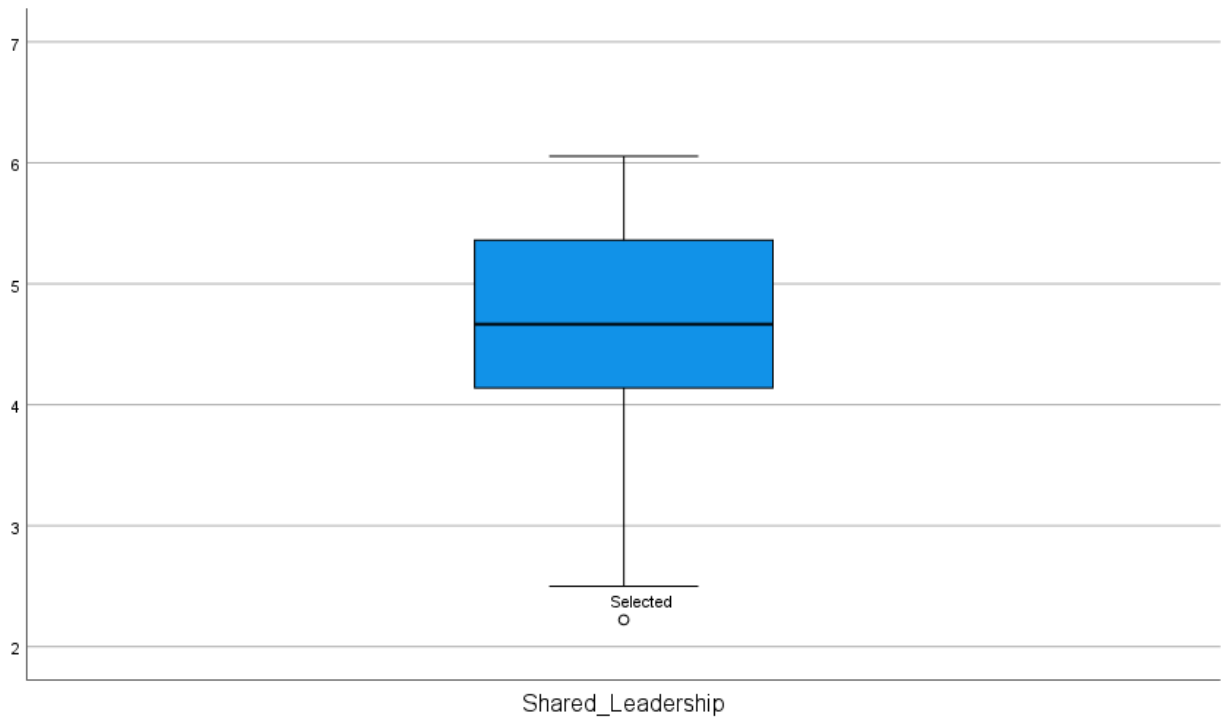
QQ Plot Team Performance



Boxplot Team Performance



Boxplot Shared Leadership



Regression Output of PROCESS Moderated Mediation Analysis on Team Performance

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 3.4 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
 Documentation available in Hayes (2018). www.guilford.com/p/hayes3

Model : 14
 Y : Team_Per
 X : Shared_L
 M : Team_Eng
 W : Team_Enj

Covariates:
 Task_Con

Sample
 Size: 47

OUTCOME VARIABLE:

Team_Eng

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6567	,4313	,4365	16,6816	2,0000	44,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-2,3300	,6961	-3,3471	,0017	-3,7329	-,9270
Shared_L	,5673	,1164	4,8742	,0000	,3327	,8019
Task_Con	-,1013	,0941	-1,0768	,2874	-,2908	,0883

OUTCOME VARIABLE:

Team_Per

Model Summary

R	R-sq	MSE	F	df1	df2	p
,7723	,5965	,6031	12,1232	5,0000	41,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,6550	,9180	1,8028	,0788	-,1990	3,5089
Shared_L	,6914	,1705	4,0559	,0002	,3471	1,0357
Team_Eng	,5772	,2130	2,7102	,0098	,1471	1,0073
Team_Enj	-,3136	,1782	-1,7599	,0859	-,6735	,0463
Int_1	,0527	,1073	,4906	,6263	-,1641	,2694
Task_Con	-,0996	,1147	-,8685	,3902	-,3312	,1320

Product terms key:

Int_1 : Team_Eng x Team_Enj

Test(s) of highest order unconditional interaction(s):

R2-chng	F	df1	df2	p	
M*W	,0024	,2407	1,0000	41,0000	,6263

Focal predict: Team_Eng (M)

Mod var: Team_Enj (W)

Data for visualizing the conditional effect of the focal predictor:

Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/

Team_Eng Team_Enj Team_Per .
 BEGIN DATA.

```

-,8568  -,9080  4,3955
,0000  -,9080  4,8491
,8568  -,9080  5,3027
-,8568  ,0000  4,0698
,0000  ,0000  4,5643
,8568  ,0000  5,0588
-,8568  ,9080  3,7440
,0000  ,9080  4,2795
,8568  ,9080  4,8150
    
```

END DATA.

GRAPH/SCATTERPLOT=

Team_Eng WITH Team_Per BY Team_Enj .

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
,6914	,1705	4,0559	,0002	,3471	1,0357

Conditional indirect effects of X on Y:

INDIRECT EFFECT:

Shared_L -> Team_Eng -> Team_Per

Team_Enj	Effect	BootSE	BootLLCI	BootULCI
-,9080	,3003	,1734	-,0026	,6776
,0000	,3274	,1564	,0804	,6913
,9080	,3546	,1643	,0910	,7492

Index of moderated mediation:

Index	BootSE	BootLLCI	BootULCI
Team_Enj	,0299	,0702	-,0748 ,1997

Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)

Effect1	Effect2	Contrast	BootSE	BootLLCI	BootULCI
,3274	,3003	,0271	,0638	-,0679	,1814
,3546	,3003	,0542	,1275	-,1358	,3627
,3546	,3274	,0271	,0638	-,0679	,1814

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

W values in conditional tables are the mean and +/- SD from the mean.

NOTE: The following variables were mean centered prior to analysis:
Team_Enj Team_Eng

NOTE: Variables names longer than eight characters can produce incorrect output.
Shorter variable names are recommended.

----- END MATRIX -----

Results of PROCESS Mediation Analysis on Team Performance

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 3.4 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

Model : 4
Y : Team_Per
X : Shared_L
M : Team_Eng

Covariates:
Task_Com

Sample
Size: 47

OUTCOME VARIABLE:
Team_Eng

Model Summary

R	R-sq	MSE	F	df1	df2	p
,7510	,5640	,3346	28,4589	2,0000	44,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,5850	,4677	3,3887	,0015	,6423	2,5277
Shared_L	,4645	,1023	4,5432	,0000	,2585	,6706
Task_Com	,2520	,0653	3,8613	,0004	,1205	,3836

OUTCOME VARIABLE:

Team_Per

Model Summary

R	R-sq	MSE	F	df1	df2	p
,7509	,5639	,6216	18,5305	3,0000	43,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-,4453	,7159	-,6221	,5372	-1,8891	,9984
Shared_L	,6878	,1689	4,0717	,0002	,3471	1,0285
Team_Eng	,2849	,2055	1,3867	,1727	-,1295	,6993
Task_Com	,0899	,1029	,8731	,3875	-,1177	,2975

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
,6878	,1689	4,0717	,0002	,3471	1,0285

Indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
Team_Eng	,1324	,1200	-,0500

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

NOTE: Variables names longer than eight characters can produce incorrect output.

Shorter variable names are recommended.

----- END MATRIX -----